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MANAGEMENT REVIEW

MARCH, 1947

AMONG THE FEATURES

Business Trends of '47

What Workers Want in Labor Legislation

Suggestion Programs in the Office

Scheduling Office Work

Picketing—Its Use and Abuse

Raw Materials Inventory Control

How to Save on Shipping

Air Cargo Streamlines Distribution

Protection Against Open Pricing

Management in British Industry

- PERSONNEL
- PRODUCTION
- OFFICE MANAGEMENT
- MARKETING
- FINANCE
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- PACKAGING
- BOOKS OF THE MONTH

AMERICAN MANAGEMENT ASSOCIATION

PACKAGING WEEK IN PHILADELPHIA . . .

CONVENTION HALL, APRIL 8-11, 1947

With the resurgence of competition—packaging competition in particular—the race is on for more effective and sounder packaging ideas. Shelf appeal, utility, easy identification, advertising, protection, and all those other factors that make for effective merchandising will be increasingly important in the months ahead. Alert companies are developing better and cheaper types of packaging—better than the prewar period but, above all, better than the packages of competing products. AMA's 16th Annual Packaging Conference and Exposition will give you an opportunity to hear and see the progress that is being made in packaging and will provide definite ideas that can be applied to your own product lines. "Flash news" of the Conference is given below:

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Evaluating Package Design . . . Cost Reduction . . .
The Receiving Clerk's Viewpoint . . .
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Mark your calendar now!

AMERICAN MANAGEMENT ASSOCIATION

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New York 18, N. Y.

the MANAGEMENT REVIEW

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MARCH, 1947

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James O. Rice, *Editor*; M. J. Dooher, *Managing Editor*; Alice Smith, *Associate Editor*; Vivienne Marquis and Evelyn Stenson, *Assistant Editors*.

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THE MANAGEMENT INDEX

General Management

Business Trends of '47—Management's Predictions

THE crystal-gazing of U. S. management at the beginning of any year has more than a little to do with what happens to business during that year. But it's particularly significant this year in which "recession" has been predicted so widely.

Early in '47, according to a recent poll, the U. S. executive expects a general downturn in business, but thinks that his own business will be as good as or better than it was in 1946. He seems to share a common feeling that the boom cannot last, but confidently expects that he personally will not suffer. This may seem contradictory, but determined individual optimism is traditional to the American business man and has been an essential factor in his success. Just now the executive's inherent optimism is bolstered by his belief that the troubles he faced in '46 will be eased in 1947. He thinks strikes will be fewer, bottlenecks in materials and equipment will be broken, labor will be more plentiful.

While executives as individuals have high hopes for 1947, there is a significant division of opinion between various industries—a division that crops up consistently throughout the study. Management in the capital and hard-consumer-good industries is firmly bullish; men in soft goods are con-

siderably less so; and executives in commerce (a group that in this sample is composed mainly of wholesalers and retailers) are frankly gloomy. There's a reasonable explanation for this division of opinion: Producers of hard consumer goods and of capital goods have large backlogs. This, plus an easing of bottlenecks in materials and machinery, causes executives to believe that they will run out the year at full throttle. But in soft consumer goods orders aren't piling up. Cancellations are increasing.

Business in general. Executives were asked specifically how they felt about the business outlook for '47 as compared to '46. An upturn was predicted by 22 per cent; 23 per cent foresee no appreciable change; 49 per cent expect a moderate downturn; 5 per cent predicted a sharp downturn; the remaining 1 per cent made no estimate.

Asked for their interpretation of the stock-market break late last summer, 36 per cent attributed it to diminishing profit prospects; 33 per cent, to fear of the next strike wave; 26 per cent, to inevitable deflation after a boom which had inflated stock prices excessively; 10 per cent, to widespread anticipation of a depression; 9 per cent, to the generally erratic behavior of Wall Street, which has nothing to do

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with business conditions. Lack of confidence in the government was the reason volunteered by 4 per cent; another 4 per cent suggested other factors; 3 per cent advanced no opinion. Figures add up to more than 100 per cent because many respondents felt obliged to name more than one factor.

Asked what effect they thought the Wall Street slump will have on business in general in '47, 24 per cent felt that there would be no effect; 68 per cent foresaw a slight effect; 6 per cent expect serious effects; 2 per cent gave no estimate.

"Do you think we will have more strikes in 1947 than in 1946, fewer, or about as many?" was the next question. A pessimistic 10 per cent expect more; 32 per cent think there will be about as many; 58 per cent expect fewer.

The moderate optimism reflected here may be due in part to faith in the much-heralded Republican legislation slated for this winter (the ballots reached respondents just after the elections). A foresighted few may be basing their answers on the prospect of lower living costs that should follow the predicted break in farm prices. Executives in the South (where 15 per cent expect more strikes) are the most pessimistic about the labor situation; New Yorkers lead in optimism (63 per cent expect fewer strikes).

Executives' Own Business. Manufacturing executives only were asked the following question: "In the last two months has your backlog of orders been increasing, diminishing, or staying about the same?" A total of 32 per cent report an increase; 50 per cent report no change; 18 per cent, a decrease. Broken down by groups, the answers were as follows: capital goods—increasing, 46 per cent; about the same, 38 per cent; diminishing, 16 per

cent. Consumer goods (hard)—increasing, 32 per cent; about the same, 51 per cent; diminishing, 17 per cent. Consumer goods (soft)—increasing, 23 per cent; about the same, 56 per cent; diminishing, 21 per cent.

Retailers and wholesalers were asked whether, in relation to sales, inventories were normal for the season. They are above normal according to 41 per cent; normal for 28 per cent, below normal for 31 per cent.

Manufacturing, transport, and utility executives were asked how they thought their situation in regard to raw materials, parts and components, and new machinery and other equipment would be in 1947 as compared to '46. Raw materials, according to 10 per cent, will be harder to get; 19 per cent believe that supplies will be about the same; they'll be easier to procure, according to 64 per cent; much easier, 6 per cent. One per cent made no estimate.

Parts and components will be harder to get, according to 7 per cent; 20 per cent believe they'll be about the same; 65 per cent expect that they'll be easier to get; 7 per cent believe that they'll be much easier to obtain; 1 per cent advanced no estimate.

New machinery and equipment will be harder to get, according to 7 per cent; about the same, according to 20 per cent; easier to get, according to 62 per cent; much easier, according to 10 per cent. One per cent advanced no estimate.

Wholesalers and retailers unanimously expect more goods than they received in 1946. Since they report inventories as normal or above, it is clear that distributors expect to be well supplied with merchandise in 1947.

More labor as well as increased material supplies are forecast for 1947. It is predicted by only 10 per cent that

skilled labor will be scarcer than in 1946; about the same, by 24 per cent; somewhat easier than in 1946, by 57 per cent; much easier than in 1946, by 8 per cent. One per cent made no estimate.

The outlook for unskilled labor is even more optimistic. It will be scarcer than in 1946 in the opinions of only 4 per cent; about the same, 16 per cent; somewhat easier than in 1946, 53 per cent; much easier than in 1946, 20 per cent. The remaining 2 per cent made no estimate.

Prices in general will increase, in the opinion of 34 per cent; there'll be no appreciable change, according to 20 per cent; they'll decrease, in the opinion of 44 per cent; 2 per cent made no estimate.

It is pretty generally believed that farm prices will break in 1947. Fully 75 per cent of the respondents predicted a decrease; only 7 per cent predict an increase; 13 per cent expect farm prices to remain about where they are; 5 per cent venture no opinion.

Wages will go up in '47, in the opinions of 60 per cent of those interviewed. There will be little appreciable change, according to 34 per cent; wages will decrease, according to 4 per cent; 2 per cent made no estimate. When asked what they thought would happen to their own labor costs, executives indicated that their individual situations would follow pretty closely the pattern drawn for business as a whole.

Most executives expect the costs of the materials they buy to go up. An

increase was predicted by 46 per cent; no appreciable change is seen by 23 per cent; a decrease is forecast by 29 per cent; 2 per cent made no estimate.

Despite rising labor and materials cost, half the respondents expect no appreciable change in their own prices; 32 per cent do expect to lift their own prices; 15 per cent expect that their own prices will decrease; 3 per cent made no estimate.

By and large, the profit outlook for 1947 seems good. Fully 36 per cent of the respondents expect that profits after taxes will be greater than those for 1946; 23 per cent predict no appreciable change; 34 per cent expect a moderate decrease; 5 per cent expect a sharp decrease; 2 per cent advance no estimate.

The next question was: "During 1947 do you expect generally rising, stable, or falling stock-market prices?" A rising market is predicted by 29 per cent; a stable market by 31 per cent; a falling market by 24 per cent. The remaining 16 per cent wouldn't hazard a guess.

Finally, respondents were asked whether they expected to see an extended major depression with large-scale unemployment in the next 10 years. Fully 58 per cent answered "yes," 28 per cent answered "no," while 14 per cent had no answer. Of those who expect a major depression within the next 10 years, almost half think it will come in 1950 or later.

Fortune, February, 1947, p. 5:5.

• A COMPARISON BETWEEN the number of shareholders and employees in 72 of the nation's largest enterprises, having combined assets exceeding 27 billion dollars, reveals that the shareholders exceed the employees by over 11,000,000. The ratio of shareholders to employees with Packard Motor Car Company, for example, is 12 to 1, and many others indicate a ratio of five, six, and seven to one.

—*The Employment Counselor* (Employment Counselors Assn. of the United States) 1/47

What Factory Workers Want in Labor Legislation

MUCH data has been assembled to show what management and unions think about the current labor picture and how they would have it changed, but far less has appeared to indicate what workers want in terms of specific labor legislation. A survey, conducted by *Factory* in mid-46 to determine how workers felt about the Case Bill, indicated that individual workers have some definite—and rather surprising—ideas along these lines. The information summarized in this article is not based on this survey alone, but on 64 different polls of worker opinion conducted over a period of 10 years. Here's what the worker wants Congress to do:

Secret Ballots. He wants Congress to guarantee union members a secret ballot for strike votes—and possibly for regular union elections.

As long ago as 1937 workers were demanding these things by votes of better than 10 to one. Last year the demand for secret ballot votes before strikes rose to an all-time high of 30 to one.

Mediation and Cooling Off. He wants Congress to set up federal mediation boards to operate during a mandatory cooling-off period.

In the mid-46 survey *Factory* asked workers whether they were in favor of a 60-day cooling-off period, to be used in an effort to settle controversies. Union and non-union workers favored it overwhelmingly by 75 and 85 per cent respectively. They were then asked whether they were in favor of "a federal mediation board to step in for 30 days while seeking to adjust differences." Here the demand was even more urgent, with 84 per cent of union members and 89 per cent of non-union

members coming out for the idea. Two other surveys made during 1946 brought substantially the same results—vote ratios of three and four to one in favor of these or essentially similar proposals.

Public Accounting. He wants Congress to require unions to make an annual public accounting of receipts of disbursements.

The demand for such a requirement has been growing rapidly in the past decade and today has reached overwhelming proportions. Ten years ago union members voted two to one against requiring public financial statements by unions. However, even at that time sentiment was four to one in favor of requiring unions to make statements to their members. The seven years that followed saw members getting more and more anxious for public accounting. By last year the worker's vote was 10 to one for this proposal.

Contract Liability. He wants to make unions liable for breach of contract.

There is no doubt in workers' minds or union members' minds about this question. Six months ago *Factory* found 72 per cent of union workers, 74 per cent of non-union workers, for this proposal. And a lot of workers were undecided; only 14 per cent came up with a perfectly flat no!

Compulsory Unionism. He wants Congress to guarantee his right to get and hold a job regardless of union membership.

Pollsters have been keenly aware of the significance of this issue, and the questions relating to it have been asked many times—and in many ways. Most often, surveys have offered the worker

a three-way choice: "Which do you favor, the open shop, the union shop, or the closed shop?" That question, or one very similar to it, has been asked of workers every year save one since 1941. Analysis of those surveys indicates a trend toward the open shop and a trend away from the closed shop. Six years ago about three out of every 10 workers favored the open shop; today about six out of 10 favor it. Six years ago about two out of every 10 workers favored the closed shop; today only about one out of 20 favors it. More or less in the middle of these shifting trends has been the union shop—it has held favor with between 40 and 60 percent of the workers throughout the period.

But here is where the lack of understanding of terms enters the picture. When asked if a man should be required to remain in a union to hold his job, union members voice their opposition to the tune of almost three to one—and non-union workers oppose this policy by well *over* three to one.

Employer Freedom. He wants Congress to drop the present legal barriers to freedom of expression on the part of management.

No trick questions have been used here to obtain worker endorsement of the vague constitutionality of "free speech." Every one of the polls studied included the phrase "about joining unions," "about union matters," or some equivalent. These polls, taken over a period of the last four years, show remarkably consistent results. Non-union men favor the proposal by four to one, and better; union members have shown a slight majority of two to one in favor. One recent survey found three-fifths of union members in favor of letting a management representative state the company's case in union strike meetings. While the

union vote is not overwhelming, all workers are almost three to one in favor.

Boycotts. He wants Congress to protect him from loss of work resulting from secondary boycotts.

Workers were asked: "If you had your say, would you ask members of your union to refuse to handle or install parts made by non-union workers or members of another union?" Of all workers, only one out of five said yes.

Political Activity. He wants Congress to regulate—and perhaps ban—political activity on the part of unions.

Most thorough-going survey on this subject was made by *Factory* in the fall of 1945. Workers were asked whether unions ought to form their own political parties, work with present parties through union committees, or stay out of politics. About 10 per cent failed to express any opinion but, among those who did answer, union politicking came out second best. More workers said "stay out" (47 per cent) than favored the other proposals combined.

Strikes Against U. S. He wants Congress to provide severe penalties for strikes against government and government-owned industries and plants.

He favors strongly two methods of enforcing such a law—methods that do not affect him personally. He votes almost five to three, with 15 per cent expressing no opinion, to "fine or imprison labor leaders who interfere with resumption of work in plants taken over by the government."

Despite his general approval of measures to enforce seizure once it has taken place, the worker does not approve of seizure itself as a method of settling disputes. Several polls have shown from a bare majority to two-thirds of workers opposed to seizure

as a means of settling or preventing strikes.

Status of Foremen. He wants Congress to permit unionization of foremen under the Wagner Act.

While the majority of workers are for having foremen join workers' unions, it is perhaps more significant that foremen themselves want Congress to make it illegal for foremen to join a union. In a nationwide survey foremen were asked point-blank if it was "proper" for a foreman to belong to a union. Nearly two-thirds answered that it was not.

Welfare Funds. He does not want Congress to prohibit union welfare funds.

Only 23 per cent are in favor of any legal curtailment of employer contributions to union-controlled welfare funds; 63 expressed opposition to such

a proposal; 14 per cent were undecided.

This is just one more indication of the worker's insistence upon security. And if he doesn't feel he's getting it from management, he will try to get it through unions.

Phrases versus Facts. Perhaps the single most important fact to emerge from this analysis of worker polls is the selling job unions have done in gaining worker acceptance of certain words and catch phrases. Workers favor a *term* but in many cases oppose the fact which it implies. Lesson for management: *Bring home to workers the true meaning and full implications of such terms as secondary boycott, sympathy strike, contract liability, union shop, and closed shop.*

Factory Management and Maintenance, January, 1947, p. 78:4.

Truckers of the Skyways

THE independent air freight business, fathered by the flying veterans of World War II, is the latest example of American initiative and enterprise. It's a youthful industry, headed and manned by men comparatively young in years, but old in aviation "know-how."

The hardest job these ex-GIs had was to secure planes suitable for carrying cargo. With government priorities in existence, the fledgling air freighters had to buy planes wherever they could find them. In most cases, the workhorses of the Army had to do—Curtiss Commandos and Douglas C-47's. Budd, Conestoga, and Douglas C-3's were also put to use. Personnel was recruited mainly from the ranks of ex-servicemen.

Operations were begun with no available guide in establishing rates low enough to attract shippers, or high enough to assure profitable and continued service. But, as the business quickly passed from the experimental phase and the air freighters found they could transport cargo more cheaply, rates very quickly nosedived.

Right now, some carriers are reported flying freight as low as 10½ cents a ton mile. However, many members of the industry feel that such low rates are mere "wildcatting" tactics and not conducive to good business practice. One independent cites its own experience that even 16½ cents is not sufficient to enable a break-even operation. As a regularly scheduled airline operator phrases it, some of the newcomers in the field are apparently better pilots than they are business men.

Nevertheless, the steady decrease in rates has taken air cargo out of the luxury class for shippers.

In the process of opening up new markets for agriculture and industry, the air freight business has mushroomed. In fact, the field is expanding so rapidly that current figures are unavailable, but an indication of its potential is the recent claim by the independents that they can handle up to 4 or 5 million ton miles per day in an emergency. Figures from one of the largest all-freight carriers show an increase from 61,000 ton miles in March to over 1,000,000 in August.

—ELMER M. SHANKLAND in *Forbes* 1/1/47

Liquidation of the Middle Brackets

BECAUSE of high federal income taxes and the decline in the value of the dollar, most salaried Americans are worse off today than they were in 1940, even though their pay checks have increased.

This, according to figures assembled by William E. Dugan, chief investment analyst for the Wall Street house of Laidlaw & Co., is what has happened to the man with a net taxable income of \$5,000 per year, assuming he's married, with no other dependents: Not only have his taxes increased almost 700 per cent since 1940, chopping disposable income from \$4,890 to \$4,202, but the drop in the value of the dollar (which is conservatively estimated here at 20 per cent) has cut the \$4,202 to \$3,362. In order to get back the purchasing power he had in 1940 the \$5,000-a-year man would have to earn about \$7,500 a year—half again as much as he is making. In an even worse position, relatively, is the individual with a net taxable income of \$10,000 a year. Taxes sliced his disposable income from \$9,472 in 1940 to \$7,815 in 1946, and inflation pared it further to \$6,252—a 34 per cent total cut. To restore his 1940 purchasing power, he would need about \$17,500 a year—a 75 per cent raise.

But the sharpest yelps of anguish come from U. S. executives with a net taxable income of \$20,000 and up. During the last six years these inmates of the upper brackets have seen their disposable incomes decline anywhere from 38 to 48 per cent, largely because of federal surtax rates. An executive who had a net taxable income of \$20,000 in 1940 and realized \$17,664 after taxes would have to make \$40,000 today in order to clear an unadjusted \$17,522—in other words, he would still go slightly in the hole. A breadwinner with a net taxable income of \$30,000 a year would need \$70,000 to stay roughly at his 1940 purchasing-power level.

The squeeze is by no means confined to the 8 per cent of the country's families and single consumers who enjoy incomes of \$5,000 a year and up, but the state of mind of men in the upper-income brackets is a peculiarly important factor in the U. S. economy. As Mr. Dugan points out, the pessimism of the average corporate executive, resulting from his personal financial problems, is probably an important stock market factor. During the war he maintained his 1940 living standard by investing savings in the rising stock market and spending capital gains, taxed at a maximum of 25 per cent, as he would have spent income. But today there is no long-term bull market for him to ride.

What socio-political conclusions may be drawn from the mounting dissatisfaction of the top U. S. income group remain to be seen. Some upper-bracketers speculate gloomily about the imminent "liquidation of the middle class." (Characteristic of Americans of all income groups, according to the *Fortune* survey for February, 1940, is their firm conviction that they belong to the middle class.) Others see succor already in sight—since the Republicans have promised to slash income taxes. But one practical manifestation of the general unrest is already in evidence: Expense accounts and entertainment budgets have burgeoned with unprecedented splendor.

—*Fortune* 1/47

Graduate Fellowships for Management Training

AS IN previous years, Radcliffe College is offering a basic training program for young women preparing to work in personnel departments or in other branches of administration in business, government, educational, or social service institutions. A limited number of fellowships covering the tuition fee in whole or in part, for the year 1947-48, have been made available for qualified college graduates.

The program, beginning August 25, 1947, includes about seven months' class instruction by members of the faculty of the Graduate School of Business Administration, Harvard University, and others. Carefully selected full-time apprentice work in business, government, and other organizations occupies about three months.

Enrollment is open to a limited number of graduate students. For catalogue and further information apply to Mrs. T. North Whitehead, Management Training Program, Radcliffe College, Cambridge 38, Massachusetts.

Office Management

Suggestion Programs in the Office

HOW can we get *office* workers to submit more suggestions?" This problem confronts many members of management who believe suggestions submitted by employees can be among the outstanding contributing factors to a company's success. According to a Dartnell study of some of the most successful suggestion systems, the proportion of suggestions received from office employees as compared with that received from factory workers runs as low as 3 per cent in some organizations. Some firms, on the other hand, have had little difficulty in getting the white-collar worker to submit ideas. The results achieved by the suggestion system in operation at the American Surety Company, New York—a firm employing only white-collar workers—are indicated in the following statement by one of the company's executives:

In 1942 our president . . . sent a communication to all members of the staff, stating that he was looking for new ideas and suggestions for carrying on our business which would: (1) produce more desirable business; (2) save unnecessary expense; (3) increase service and efficiency.

The response was immediate from all departments in the home office and all branches of the company. The staff of our companies numbers approximately 1,700 people, with half located in the home office and the other half in 38 branch offices. During the first year of the operation of the suggestion plan, well over 1,000 suggestions were received, and for 4½ years the flow of new ideas and the interest in the program have been sustained.

Stimulating Interest Among Office Employees. Forms of publicity to convince office people they have as much opportunity for thinking up winning

ideas as have plant workers vary from book matches to elaborate employee handbooks, devoted entirely to the suggestion plan. Many offices depend primarily upon weekly posters and stories in the employees' magazine, with occasional variations, such as pay envelope stuffers, to bring the advantages of the plan more forcefully to the attention of office workers. Making awards at mass meetings appears to be one of the most effective means of stimulating interest. Most of the reporting offices include a lecture on the suggestion system in the indoctrination program.

How Awards Are Made. Of the 8,000 to 10,000 suggestion systems in force in the United States, only a very small percentage award merchandise for approved suggestions. When merchandise is used, it is used only as special awards, in addition to cash. At the Electric Storage Battery Company, any employee receiving an award or a number of awards totaling \$250 is given a silver pin, and any employee receiving an award or a number of awards totaling \$500 is presented with a gold pin.

The average minimum award for a single suggestion is \$5. The maximum award is unlimited in some offices, while in others a definite limit is placed on the maximum amount paid for any adopted idea. Some companies prefer to pay a straight percentage of the savings made possible by the suggestion. One employee of Swift & Company received a check for \$6,600; another, one for \$5,200. In each case, the

amount paid was based on a percentage of the savings to the company. RCA bases awards on 10 per cent of the savings realized the first year through the adoption of an idea—such award not to be less than \$2 and not to exceed \$500 on any one idea. The White Motor Company has a policy of reviewing outstanding suggestions several months after adoption to determine whether the savings realized exceed the percentage of the original award and thus whether the suggester should be paid an additional amount for his idea.

Following the general plan of most firms, the H. J. Heinz Company divides adopted suggestions into two groups—those showing tangible savings and those having intangible values. For ideas producing tangible savings, the rate of 15 per cent of the estimated first year's net savings, or 10 per cent of the estimated first year's gross savings—whichever is greater—is paid. Intangible savings pay the suggester at the rate of 5 per cent of the estimated value to the firm, or 5 per cent of the cost on installation of the suggestion. The Stromberg-Carlson Company, Rochester, N. Y., reported a \$5 minimum and \$150 maximum, based on one-half the first year's savings. Prior to establishing this figure as a maximum amount, the company paid one suggester \$2,824.20.

Functions of an Award Committee. The type and functions of an award committee vary according to the size and type of office and according to type of suggestion system in force. Awards at the General American Transportation Corporation are recommended by local committees in each of the company's offices, shops, and plants, and are approved by an executive committee of top management officials. The local committees are

comprised mainly of a superintendent, a foreman or supervisor, and one or two employees. The supervisor and the employees are rotated every six months to give more people a chance to participate.

The committee at the W. F. Hall Printing Company is composed of four members representing management and four from operating personnel, whose duties are: (a) to make the initial screening of suggestions; (b) to assign them to department heads for further investigation; (c) to approve or reject them; and (d) to evaluate those which have been approved. The plan at this Chicago company resolves itself into two parts: (1) regular suggestions from non-supervisory personnel, and (2) "Ideas Unlimited" for the supervisory force. Except in the matter of awards, the functions of each of these plans are parallel.

Getting Cooperation From Supervisory Personnel. Active participation of supervisors in contributing ideas to these plans is encouraged in some of the offices reporting; is allowed on a modified basis in others; and, in still others, is not permitted at all. In a large dairy products and milling company, all supervisors up to the rank of assistant plant manager are eligible to participate in the suggestion plan. This includes general foremen and supervisors. One of the main tasks of the suggestion system's manager is to sell supervisory personnel on the plan—and keep them sold on it.

A representative of American Steel Foundries says:

Our supervisors are not eligible to participate in our system so that our problem has been to train them to support and encourage participation on the part of the workers. We feel that this is a never-ending process and fits in very well with our supervisory training programs.

Requisites of a Successful Plan. In

summing up the requirements for the setting up of and the administration of a successful suggestion system, a representative of the American Surety Company reports as follows:

The prerequisites for a successful suggestion system that will increase the interest and cooperation of office workers are, it seems to me, essentially the same as those for other classes of workers,

namely: (1) active interest and support of top management; (2) adequate machinery to handle suggestions promptly; (3) liberality in making awards; (4) good publicity; (5) introduction of new features; (6) cooperation of department and division heads.

From *Getting Suggestions from Office Employees*. The Dartnell Corporation, Chicago, 1946. 13 pages.

Office Equipment of Tomorrow

TANTALIZING miracle machines—most of them still being displayed rather than sold—promise eventually to bring about a small revolution in office methods.

An electric typewriter that makes 19 carbon copies will help meet the complexities of some businesses. Others, concerned with even greater volume of turnout, may solve their production problems through the use of a new typewriter network which operates by radio, making more than a dozen copies on every machine.

A letter-opening machine slits envelopes at the rate of 700 per minute—faster than a machine gun sprays out bullets. A robot answers the telephone. An electronic device multiplies numbers like 726,839 by 9,465.16—a hundred of them every minute. A versatile typewriter will write English, Russian, or Assyrian Cuneiform.

Business men aren't the only ones using, or hoping shortly to use, high-powered efficiency machines. One newspaper, for example, has installed portable combination radio and typewriter units in cruise cars so that reporters can dash to the scene of events and type their stories on the spot. What they type will be flashed by radio to a reproducing machine in the city room. The manufacturer suggests that this system can be of great use to any large manufacturer whose plants are scattered or who requires rapid communication through a single huge plant. Such a network comprises from two to 12 machines, each reproducing anything typed on another.

A new portable television unit, first used by the Army in still-secret operations, has been developed for business purposes. It consists of camera, screen, and a power unit. Its backers suggest that a factory manager can use it to watch what goes on in all his departments. Bank officials might use it for long-range verification of checks or customers. It is also recommended to researchers who'd like to watch experiments that can't be conducted in the same room with them for reasons of safety or space.

—*The Wall Street Journal* 10/5/46

Five-Day Week Spreads Among Offices

OFFICE workers more and more are going on a five-day workweek, a recent survey reveals. Of 437 industrial and commercial companies polled in 20 cities by the National Industrial Conference Board, office staffs of only 141 had the five-day week during the war. Now 346, or 80 per cent, have the five-day week.

Office staffs of 154 firms worked a five and one-half day week during the war, and all but 54 have dropped the Saturday morning schedule. Office workers of 84 companies were on a six-day week prior to VJ-Day and now only 14 retain all-day Saturday hours.

—*The Wall Street Journal* 1/27/47

Scheduling Work in the Office

WORK scheduling is a management tool for getting work done accurately, promptly, and at lowest possible cost. Let's observe the process of work scheduling, and the factors that affect it, by considering a hypothetical case involving a fairly small office that is in bad shape—work delayed, personnel uncertain, work inaccurate. Assuming a new office manager has been hired, let's trace the steps he would have to take to put the office on its feet.

1. An organization chart should be prepared, showing names, jobs, and principal duties of all subordinates—arranged by work groups—and indicating to whom each employee is directly responsible.

2. Those in supervisory capacity might be scrutinized as to the following points: Are they capable? Do they know their jobs and the detailed duties of their subordinates? Do they command the respect of their workers? Do they function as supervisors, or are they supervisors in name only?

3. Some of the history of each member of the staff should be learned, including not only such items as salary, length of service, time on the job, previous experience and training, aptitudes and skills, but also other jobs in the office at which each has had experience—useful knowledge in times of illness, holidays, or peak loads.

4. Volume of work to be performed should be measured in terms of units. This would include orders from customers, checks drawn, accounts payable invoices, billings, cylinders transcribed or letters written, postings to stock records, amount of copy work, and similar routine functions.

5. Each employee should be instructed to prepare a daily report to

show the starting and ending time for each type of operation performed and the number of units of work completed during that time. Time spent on relief, waiting for work, or otherwise unaccounted for, should be similarly listed with an explanation.

6. Each employee's report should be tabulated daily to show the amount of time required for each type of operation, the number of units completed during the time, and the average of time per unit. The amount of lost or unaccounted-for time should be tabulated daily also.

7. Copies of all reports prepared should be collected and for each the purpose of the report, due date, the number of copies, by whom prepared, by whom required, the source of material used in the report, and the estimated time for preparation should be noted.

8. Work flow charts should be prepared for all types of clerical operations that lend themselves to such analysis. These charts should show each operation separately in the sequence in which it occurs, should briefly describe each operation, and should trace through final disposition all copies handled or prepared during the operation. This procedure will clearly show loose ends, duplication of effort, omission of necessary functions; it will also permit checking of actual practice against standard practice.

9. A desk layout should be prepared—drawn to scale—showing the name, job, and department of each employee.

10. A study of this layout should be made with a view to establishing the relationship of desks most conducive to adequate supervision, orderly flow of work, proper seat spacing, segregation

of noisy machines when possible, accessibility to files and equipment habitually used, and elimination of the confusion that results from frequent or continuous traffic through the office.

11. Every job should be analyzed to determine what equipment, if any, is needed to insure the greatest speed and accuracy possible in the handling of the clerical operations involved. Factors that should be considered here are: (a) the period of time that equipment is needed; (b) the availability of equipment; (c) the possibility of exchange of equipment. An inventory of machines and equipment should be taken to determine what machines are on hand and whether they are best for the job.

12. All policies under which the office operates should be carefully analyzed. After the improvements indicated as a result of these procedures and analyses have been made, all work should be classified for scheduling according to time frequency, that is, regular—daily, weekly, monthly—or intermittent.

The allocation of work is an important factor in scheduling. The group supervisor should know the amount of work on hand as well as the amount of time and the number of people required to do it. Allocation of work can easily be handled by the supervisor through the medium of the "folder system." This merely means that a given number of units of work, say 10, are placed in a folder on the supervisor's desk for

distribution. An employee takes a folder, marks the time it is taken, does the work, and upon returning it when the work is done, marks the time of completion. The supervisor knows at all times the amount of work on hand, the amount already distributed, and the time the latter should be returned. This method of work distribution—while not necessary continuously—is a very efficient means of getting production back to a normal basis whenever office operations seem to be bogging down.

The office manager should require daily reports from supervisors of the number of units of work completed and the number of units not completed at the end of the day. These reports should be the basis for the scheduling of the following day's work.

Schedules should be prepared for reports which are required at either stated or infrequent intervals. A common practice is to work backward from the day that a report is due. By allowing time for each of the operations which go into the preparation of the report, a starting time is developed. By the use of a follow-up method, the employee responsible for the preparation of the report may be reminded that it is due and that the preparation of the report should be started. The supervisor should check the various steps in the preparation of the report against his schedule to see that the steps are performed at the proper time.

BY JOHN S. WILTSE, *NOMA Forum*, November, 1946, p. 3:5.

• MANAGEMENT COMMITTEES of various types are in rather wide usage, according to results of a recent survey by the National Industrial Conference Board. Of 24 large companies (with assets over \$20 million), approximately one-half used committees, most of which were executive committees. Only four of these had from two to four committees. Among 15 medium-sized companies (having assets from \$1 to \$20 million) only six committees were in operation. Of these, three were executive committees.

Personnel

Vacations for Industrial Workers

FOUR out of every five employees in private industry in the United States are eligible for vacations provided they meet specified requirements as to length and regularity of service. Vacations with pay were granted large numbers of factory workers for the first time during the war. The practice of giving a bonus in lieu of a vacation—common during the war emergency—is becoming rare. The postwar trend has been toward maintaining, and even increasing, vacation benefits granted industrial workers. As a result, in some companies today office workers and workers paid on an hourly rate basis are enjoying the same vacation privileges.

In a recent study of the practices of 122 companies, the Policyholders Service Bureau of the Metropolitan Life Insurance Company found there are two points of view on the establishment of a company vacation policy. One is that an over-all policy is desirable; the other is that the vacation program is negotiable and therefore no company policy should be issued.

In general, vacation plans reviewed fall into three patterns. In the first, all employees who have a minimum length of service receive vacations of the same length. In the second, length of vacation varies with length of service. In the third, all employees receive the same length of vacation, but the amount of vacation pay varies with length of service. In the last group, the plant usually shuts down for the vacation period. In the first two, the plant may or may not shut down.

The simplest type of vacation plan, but the least used, is the first. Only

four of the 122 companies, three of them public utilities, have this plan.

The most commonly used vacation pattern is the second. Of the 122 companies, 103 use some variant of this plan—the most frequent practice being to grant a one-week vacation after one year of service (81 companies) and a two-week vacation after five years of service (72 companies).

Twelve of the plans studied fall into the third category. Typical of these plans is that of The Seng Company, which closes its plant for the first two weeks of July each year and gives everyone a vacation at the same time. Vacation pay in 1946 was made on the following schedule:

Those employed on or before July 7, 1941	80 hours' pay
Those employed between July 7, 1941, and July 7, 1945	48 hours' pay
Those employed between July 7, 1945, and July 7, 1946	4 hours' pay for each completed month of service prior to July 7, 1946.

One year of service (or any other minimum service requirement) in vacation plans is a variable term, depending on the date from which service is computed. In about 18 per cent of plans reviewed, an employee is eligible for his first vacation after the first anniversary date of his employment. In the other plans, every employee in the organization who, on a given date, has completed the minimum work requirement is eligible for a vacation. The dates used for calculation of required service vary, June 1 and July 1 being those selected by the largest number of companies. An occasional firm uses

different dates for eligibility of workers with different lengths of service.

The meaning of any minimum service requirement is dependent on what deductions, if any, are made from service for time lost because of sickness, accident, layoff, or other absence. Not all the plans reviewed provide specifically for these contingencies, but the practices of some are indicated in clauses such as the two that follow:

The term "continuous service" is defined to include time lost because of layoffs for lack of work, but not more than 30 days in any year. Leaves of absence, sickness, and time lost because of industrial accidents, shall be considered continuous service.

An employee absent for an accumulative total of 90 days or more, regardless of cause, during the year preceding vacation, will be penalized one day of vacation for each day of absence above 90 days.

In general, variations of the following three formulas are used to compute the amount of vacation pay for a one-week vacation: (1) multiplication of the average hourly rate or earnings by the average number of hours worked per week; (2) division of the total earnings for a fixed period by the number of weeks worked; (3) taking a certain percentage of the employee's annual earnings. Under the first, the minimum or maximum number of hours, or both, may be fixed. Under the second formula, various premium payments may be either specifically included or excluded, as may be seen by the following clauses:

Vacation pay for an employee on an hourly basis will be computed by taking the employee's total pay for the 52-week period ending nearest June 1 of that year, dividing that amount by total hours worked during that period, including overtime hours, and then multiplying the result by 40 for a one-week vacation.

Pay for employees entitled to a one-week vacation shall be computed on the basis of the total money earned from the closing date of the previous calendar year to the date of the vacation, and

divided by the number of weeks worked since the closing date of the previous calendar year to the date of vacation. In the event an employee has lost time since the closing date of the calendar year, the earnings of such weeks in which lost time occurs, including holiday weeks, and the number of weeks, shall be excluded in the computation.

Two per cent of gross earnings for the previous calendar or vacation year is the usual form taken by the third formula. In some plans "gross earnings" are specifically defined. One such definition follows:

The term "gross earnings" excludes payments for previous vacations, workmen's compensation, awards under the beneficial plan, suggestion awards, and refunds under the company's tuition and loan education plan.

Vacations are taken usually in the summer, though a few plans state that a vacation may be taken any time during the year. Specific dates are set for the vacation season in the majority of plans, but there is little uniformity. Some of those used most frequently are:

April 1 to September 30; April 1 to October 30; June 1 to October 1; June 15 to September 15; and June 1 to December 31.

Occasionally when a vacation of more than two weeks is given to some employees, they may be required or requested to take part of their vacation during the winter.

Of the firms surveyed, 41 closed their plants for a one- or two-week vacation in 1946. Usually such shutdowns take place in July or August. Frequently firms try to offer maintenance work during the shutdown to as many employees as possible who are not entitled to vacation pay. Maintenance employees who are entitled to vacations and who work during the shutdown are given vacations on a staggered basis during the remainder of the year. The same practice is followed with em-

ployees entitled to a vacation longer than the shutdown period.

Most of the companies permit vacations to be split. Only eight state definitely that an employee must take all his vacation at one time. Several state that the practice of splitting vacations is not encouraged but is allowed.

Of the firms whose vacation plans contain rules regarding holidays which fall during the vacation period, more than half make no allowance for such holidays. The most usual way to allow credit for such holidays is to extend the vacation one day with pay. One firm extends the vacation period but without extra pay. Some firms give holiday pay in addition to vacation pay, while several permit the employee the choice between extra pay and an extra vacation day for a company-recognized holiday.

Few companies consider the possibility that an employee may be required to serve on the jury during his scheduled vacation.

Most firms whose vacation plans contain specific provision relating to returning veterans consider time spent in military service continuous employment and determine the vacation allowance accordingly. This may be qualified in two respects. Military service will count as continuous employment if the employee went directly

from the company into the service and returned to the company upon discharge. As a further qualification, some companies state that ex-service-men must return to the firm's employ by a certain date to qualify for a vacation.

One plan specifies that the returned serviceman may take his vacation after he has worked at least 60 days and that "his vacation pay shall be based upon the estimated average earnings on his particular job for the previous year." Another specifies that time spent in the armed forces during the vacation year shall be counted as hours worked at the rate of eight hours a day, or 40 hours per week, to determine the amount of vacation pay for which a returned veteran is eligible.

An occasional plan offers the veteran the choice between a paid vacation and a vacation bonus. One firm states that if the veteran leaves the company before taking his vacation in the calendar year in which he returned to employment he shall be granted a vacation allowance.

From *Vacations for Industrial Workers*, Policyholders Service Bureau, Metropolitan Life Insurance Company, New York. 43 pages. Issued to Metropolitan group policyholders; limited supply available to fill requests of other executives.

BLS Survey of Unions

THE Bureau of Labor Statistics has counted up United States trade unions and their affiliations. Result: 103 American Federation of Labor affiliates plus one semi-autonomous union (District 50 of the United Mine Workers), 40 CIO affiliates and two semi-autonomous unions (the American Federation of Hosiery Workers and the Federation of Dyers, both connected with the CIO Textile Workers Union), and 50 independent or unaffiliated unions.

Union constitutions usually provide for a president and secretary-treasurer and charge incumbents with the major responsibility in the administration of union affairs. Since summer, 1945, 32 unions have changed presidents and 41, secretary-treasurers.

Research activities of unions have grown. In 1946, 12 more unions than in 1945 had directors of research. Only two unions dropped such offices.

—*Labor Information Bulletin* 11/46

The Story of Joseph Zipotas

THIS is the story of Joseph Zipotas, but it is no fiction. It is a harsh fact. It is a commentary on a management that believes employee loyalty is built on the philosophy of "Tell them nothing!" A few evenings ago, Joseph Zipotas (name fictional) received his 25-year service pin. Because a 25-year employee ought to know his company well, *The Score* undertook in a revealing interview lasting two hours, to find out how well Joseph knew it.

This is what Joseph Zipotas does NOT know: The year his company was founded; the number of plants in the company; more than two of the company's products, which exceed two hundred; the name of his company's president (he had been president three years); the location of his company's headquarters; the source of a single raw material; either the operation which preceded his own or which followed it (except in very general terms); what free enterprise is. (He did not even recognize the phrase.)

But this is what Joseph Zipotas DOES know: The name of his union and the number of his local; names of two columnists on his union paper; names of three out of five of his union officers; four direct benefits which the union has secured for him (actually the union had secured only two of them, and a third was a compromise); a reasonably acceptable definition of collective bargaining. (His definition: "It's what the union uses to get things for the working man.")

—*The Score*, No. 4 (Newcomb & Sammons)

Personnel Testing Boosts Labor Productivity

ONE sure way to solve the urgent problem of boosting workers' productivity is to put the right fellow into the right job. A California Management Association survey of 40 firms and five governmental units which do scientific man-measuring shows two-thirds have increased their batting average in predicting workers' success on the job. Nearly half the employers believe testing has improved workers' production.

United Air Lines tests candidates for every job on its books—from accountants to yardmen. A man who wishes to pilot a plane, conduct research engineering, or do other operations work must show a high intelligence rating, and need not rank so well on personality tests. But an applicant for a job that requires meeting the populace must show emotional stability and must be affable and able to shake off worries. If he's quick-witted, that's all right too.

"We use tests as a guide to eliminate the too-smart as well as the too-dumb, when we pick our mechanical shop apprentices," says a spokesman for Corn Products Refining Company. An exceptionally intelligent youth is urged to go on to college instead.

In Jamestown, N. Y., firms unable to pay for individual testing laboratories have joined to set up a community aptitude testing shop. Each employer sends jobseekers there. If they are suitable for his work, they are hired. If not, they may fit into another of the town's businesses.

Tests used sometimes closely resemble conditions on the job. New York's biggest department store, R. H. Macy & Co., Inc., for example, tests prospective cashiers to find out if they can open, check, and return 30 cash bullets through its tube system in five minutes. The New York Telephone Company has installed a lifelike dummy switchboard to test prospective "number please" girls.

Philadelphia Electric Company determines how a man will react under emergency conditions in a substation by testing him while he is surrounded with electric flashovers, noise, and smoke.

A liquor firm tests sales applicants by taking them to a smoky bar, then telling them to join quickly in some conversation and make sense. It is one way to judge the salesman's ability to turn a situation into a selling point.

Other tests, though they seemingly bear no resemblance to the work itself, are designed to find traits needed on the job. Macy's, for instance, considers a person who can pick up 300 pins and insert them, three at a time, in 100 holes in about six minutes ideal for wrapping, packaging, or marking. Just before Christmas, when packers are in great demand, the store is anxious to hire people with a natural talent for whipping out a beribboned neat gift package.

The store tests its cafeteria workers by having them fit odd-sized discs into

the right holes. Fitting the discs properly is a key to how swiftly the person would give out the right-sized portions to a rapidly moving cafeteria line.

A building materials firm uses an intelligence test on prospective salesmen. If their intelligence runs too high, "it's difficult for them to settle down and do a sales job. Their minds don't seem to run that way," the office manager says.

Spreckels Sugar Company's plant at Salinas, Calif., uses tests for promotions—a sore point in labor relations previously. According to the personnel manager, union committee members now have a tendency to insist on tests as a final authority.

A utility company uses tests in picking its supervisors because it doesn't want to take a good worker from his bench and find he is not a satisfactory leader. "An All-American player doesn't always make a good coach," its personnel man says.

Tests are used to solve problem cases. For example, one manufacturer had an unsatisfactory press operator, who had been hired before the firm began its testing program. The operator applied for a transfer, and his tests showed he had aptitude for the new position, in which he eventually made good.

—*The Wall Street Journal* 10/17/46

Health-Welfare Funds Become Major Bargaining Issue

HEALTH and welfare funds in union agreements, which skyrocketed into public consciousness in last spring's soft-coal dispute and are now a stated AFL objective, have become more important in labor-management bargaining.

On the basis of surveys of recently started plans, the Bureau of Labor Statistics estimates 1,250,000 workers are now covered by health and welfare funds established in union agreements. This is more than double the 600,000-worker coverage shown in a survey in 1945. Both figures contrast with the situation in 1942, when the Bureau, in a special survey of bargaining agreements for the War Labor Board, found so few health and welfare provisions as to consider the subject of minor importance.

The recently negotiated agreements in hard and soft coal cover 450,000 workers—the most covered by agreement of any one union; but the clothing trades' health and welfare funds lead in over-all coverage as well as in age. The BLS notes the following funds and their coverages: men's clothing—275,000 workers; ladies' garments—about 200,000; textile, all kinds—125,000; hats and millinery—20,000; laundry, cleaning, and dyeing—30,000. Other industries, for which the Bureau has no precise information on workers covered, are: streets and railways; machinery, particularly electrical; retail and wholesale trade; fur and leather; furniture; building trades; and office workers.

—*Labor Information Bulletin* 11/46

New Influenza Vaccine Found Effective

A NEW vaccine, which has been tested and proved effective in the prevention of influenza, is now being recommended by medical authorities for use among employee groups.

At one large plant 366 employees were given inoculations of inactivated influenza virus, types A and B—the two influenza types thus far identified—at the outset of an epidemic of influenza B. Thirteen developed influenza B during the following eight weeks. Six of these developed flu during the week following vaccination. The incidence in the group vaccinated in time for antibody response was 1.94 per cent. Among the 4,280 unvaccinated employees the incidence was 8.23 per cent. Thus infection was 4.25 times as frequent in the unvaccinated group as in the group vaccinated in sufficient time to provide effective protection. The evidence indicates a definite protective effect of vaccination against epidemic influenza B—a disease which varies from an extremely mild illness to a rapidly fatal pneumonia.

—W. D. NORWOOD, M. D., and R. R. SACHS, M. D., in *Industrial Medicine* 1/47

Picketing: Its Use and Abuse

PICKETING is an historic function of labor and should be seen in its proper perspective—for much of the effectiveness of organized labor has depended on it. So necessary is it to the exercise of union powers that it would be unfortunate if forthcoming labor legislation were to affect workers' right to engage in orderly picketing. But it would be equally unfortunate if, through a social lag in observation and thought, we failed to consider some of the abuses with which picketing has come to be associated and did not accept the need of establishing suitable norms for its exercise. This discussion is concerned with some of those abuses.

Minority Picketing. When a union claims that it is the choice of the workers, and its position is disputed, or when two unions contend for membership, the procedure established by the National Labor Relations Act and by similar legislation is to conduct an official poll to determine the desires of the majority. But this wise and democratic solution is nullified when some minority group, immediately after the election, pickets to close the plant and to force the employer to deal with it. In such cases the NLRB does not offer any relief, though some of the states have ruled against this type of picketing.

Clearly, however, an amendment of the NLRA should make it an unfair labor practice for a union to picket instead of petitioning for an election in order to establish its standing. If such a rule were adopted it would, of course, be incumbent on the people to provide adequate staff and facilities to labor relations boards so that undue delay in holding of elections would not play into the hands of employers.

A second prohibition should make it an unfair labor practice for a union to picket a business after being rejected in such a poll. The right to solicit workers in the effort to change their allegiance still is available to the defeated group. Further, under NLRB practice it may, after a reasonable period, have another chance to demonstrate that it has won the allegiance of the majority. But a minority group should not be permitted to force an employer to violate existing law and to go counter to the expressed wishes of the majority in order that he may avoid being punished by the picket line.

Picketing by Non-Employee Groups. Another questionable purpose of picketing is that which is directed against an establishment for which there are no members of the union working. Once such picketing was justifiable because unions were denied the opportunity to organize. Today no group is prevented from organizational effort, and, if it obtains any showing of interest, it can earn from the NLRB an official balloting. What important social purpose, then, is likely to be served by the picketing of a plant where none of the employees involved wishes to associate himself with the picketing group?

True, some situation may be imagined in which that is the only way to reach the employees, but it is difficult to think of a well-conducted union's finding it vital today to operate in such fashion.

Picketing by Labor Against Labor. Another aspect of present-day picketing is its vastly greater use in disputes between unions in the same federation and in aggressive warfare between

rival federations, leaving the employer and the public helpless between the two.

Jurisdictional disputes have been the occasion for some of the most bitter, dramatic, and costly strikes in the history of labor relations. Some far-seeing labor leaders have recognized their menace and have tried to minimize it. What is needed, however, is a well-framed federal statute declaring such picketing an unfair labor practice against employers and other workers.

Some Arbitrary Uses of Picketing. Seasoned labor leaders have long been aware of the importance of maintaining discipline in their organizations. The wiser men among them sense that the economic power and the legal status of labor unions require a commensurate responsibility. They are often embarrassed, however, by hotheaded individuals and recalcitrant groups in their ranks, or in other unions, who engage in picketing for reasons indefensible in principle and harmful in practice.

For example, picketing has been resorted to as a measure of opposition to necessary disciplinary measures taken, during the war, against workers who left the plant during working hours, who deliberately loafed on the job, or who pegged vital production. Picketing, in such cases, was sometimes extended even to other nearby plants in an attempt to "persuade" other workers to join the strike. Picketing to influence the NLRB or the National War Labor Board in a forthcoming decision or in defiance of its award has also been undertaken in various instances. To limit such arbitrary uses of picketing many voices have been raised in a demand of a code of fair practice to be imposed on unions as well as employers. This should define the legitimate uses of picketing and list certain antisocial aims as improper.

Secondary Picketing. In secondary picketing a store selling furniture may find itself picketed because the manufacturer with whom it deals refuses to grant the closed shop. Or perhaps the picketed place is one which advertised in a paper whose working staff is on strike.

In the main the law permits most of these practices. A New York court decision that for a while had the most influence over rulings on secondary picketing developed the doctrine of the "unity of interest" as embodied in the following: "Picketing may be carried on not only against the manufacturer but against a non-union product sold by one in unity of interest with the manufacturer who is in the same business for profit." However, it was ruled that the signs borne by the pickets must clearly indicate that it was the particular unfair product being sold, and not the person (retailer) that was the object of the pickets' animus. This entire question remains highly controversial. Courts in Colorado, New Jersey, Ohio, and other jurisdictions have ruled against secondary picketing.

Objections to Mass Picketing. Mass picketing, far from being a mere matter of large numbers, is objectional for several telling reasons. First, it usually consists of close-order marching which would prevent anyone from getting through without a pitched battle. Second, the massing of pickets in one spot encourages violent excesses which might never be exhibited by the same individuals if not so congregated. Third, it creates overwhelming problems of law enforcement for community authorities.

In many of the cases where mass picketing has been engaged in, such mass action has not been necessary to protect the strikers' jobs, for the man-

gements were willing to give assurance that the plants would not operate.

When a cause has reasonable support, there is usually no necessity to post more than a handful of pickets at a plant in order to keep others out.

Objectionable Picketing Practices. Picketing of homes of executives or fellow employees has been an occasional resort of militant unions. Such tactics have been generally frowned upon by officials and by the courts. The judicial attitude on the matter is illustrated by that of a Minnesota court, which stated: "The home is a . . . sanctuary of the individual and should not be interfered with by industrial disputes." A positive statutory declaration against this practice, in federal and state law, leaving no doubt that it is illegal, would

be helpful in dealing with such aggressive tactics.

Further, the action of pickets on the line should be regulated. People should not have to run the gauntlet of abusive epithets, be subjected to violence on a public highway, or be interfered with in public conveyances. Placards borne by pickets may be libelous rather than truthful. Encouraging, in this connection, is the fact that some courts have taken cognizance of such abuses. For example, 13 truck drivers who left the employ of a company in Mount Vernon, New York, and picketed with untrue placards were found guilty of disorderly conduct and fined.

BY HERMAN FELDMAN and HARRY P. BELL. *The Annals of the American Academy of Political and Social Science*, November, 1946, p. 97:13.

Workers' Paradise

THE 400 employees of the Colson Company, Paris, Ill., manufacturers of fans and calendars for advertising purposes, enjoy—in addition to liberal profit-sharing and insurance benefits—many unusual "frills" in the way of company-donated gifts and services.

Most of the workers drive their own automobiles to work. The company maintains a parking lot for them, with the name of each motorist on his private stall. His windshield is washed daily in summer; the ice is removed in winter. If one of his tires goes flat while he's at work, the company has it repaired gratis.

All workers are invited to spend their two-weeks' vacation at Twin Lakes Park, where the company maintains cottages furnished completely for their free use. With the cottages go 35 free boats for fishing.

If an employee wants to build a house, the company advances half the down-payment—and if he needs a new refrigerator, furnace or frontroom sofa, the company lends him the full price without interest.

Any worker who can think up a good idea for improving the calendar business is awarded a free automobile. When employees get married the company comes through with a handsome wedding gift—when they have children, with a War Bond to help out with junior's education.

—FREDERICK C. OTHMAN in *The New York World-Telegram* 1/23/47

House Organ Quiz Stimulates Readership

A QUESTIONNAIRE on the contents of the company publication of the Lynchburg Foundry Co., Lynchburg, Va., has been used with good effect to stimulate more thorough and more thoughtful reading. This device, adapted from the textbook practice of placing test questions at chapter endings, is designed to point out highlights of the subject matter. Questions are placed on the inside back cover of the magazine so that readers who hurriedly thumb through the pages, skimming the contents, will be turned back by a provocative question to ferret out more information.

—*Factory Management and Maintenance* 1/47

Production Management

Raw Materials Control for Varying Production

THE MAINTENANCE of raw material inventories at a level low enough to keep warehouse and storage costs at a minimum, yet high enough to prevent interruptions in the manufacturing process, is a challenging problem which must be faced constantly by production control managers. When the demand for raw materials varies substantially with seasonal and other influences, as at Armstrong Cork, the problem may cause serious complications.

The choice of a system for controlling the raw materials for each of a manufacturer's commodities depends primarily upon the manufacturing and selling conditions existing for those commodities. The basic consideration governing the choice of any system, however, is that it make control as simple as possible without restricting management's opportunity to exercise judgment.

Many enterprises attempt to regulate their inventories of raw materials by application of the well-known "maximum-minimum" control system. In the common operation of this system, the average usage of each raw material during the past three to six months is determined by reference to past records. Usually the "minimum" inventory for each material is then established as the amount of material that was used, on the average, during the time normally required to place an order and secure delivery of the material to the factory. The "maximum" inventory is established as the "mini-

mum" inventory plus the "economical order" amount.

On the surface, the maximum-minimum system may seem entirely workable for adequate control of inventory where complex and fluctuating usage factors are involved. But examination of this method reveals definite faults and omissions. In the first place, in this system maximum and minimum limits are established solely on the basis of past usage. This in itself is a fallacy, since in the manufacture of extremely few commodities can the past be considered a reliable indicator of the future.

A second fault of the maximum-minimum system is found in its definition of minimum inventory: Even under normal conditions it is often difficult to determine how much time will be required for delivery of any order. One might well question the wisdom of waiting to place an order for raw material until there is just enough time to get the order filled before stocks run out. Wouldn't it be more reasonable to place orders well in advance of needs, specifying a delivery date and requiring acknowledgement from the supplier that he can fill the order on that date? Of course, this latter presupposes that a relatively accurate plan has been made for future production. In actual operation, if it is found that usage has been either overestimated or underestimated, it is usually possible to change the specified delivery date accordingly.

A third basic fallacy in the maximum-minimum system relates to the

necessary procedure of correcting the inventory limits at intervals of three to six months. Because this task is seldom a part of the routine work of the manager to whom it is assigned, it is one that can be, and frequently is, neglected.

As an improvement on the maximum-minimum system of inventory control for those materials for which future usage cannot accurately be predicted at long range, a system has been devised at Armstrong Cork which employs clerical workers for the routine assembly of inventory data and relies upon brief executive perusal of these data for intelligent control. The basis of this system is a single form on which all the factors relating to supply are shown clearly and in sufficient detail.

In this system the individual on whose judgment control depends is either the manager of the production planning department or the supervisor of the inventory control section within that department. It is his responsibility to have always on hand sufficient inventories to maintain operations. He must also consider storage facilities, purchase price, and cost of investment so that he can take advantage of economies in purchasing.

The choice of this executive for this function is dictated by another important consideration. His working familiarity with future production plans for each commodity especially qualifies him to make the decisions for inventory control. He knows whether the general volume of production is to be increased or decreased, and by what proportion. He has at his fingertips not only the production schedules for weeks or months to come, but also a knowledge of prospective changes in these schedules.

A single form or record of past performance on which this executive bases his judgment is made up for each commodity controlled by the system. These single-sheet forms are usually of loose-leaf type, letter-size, and are kept with all others in a convenient ring binder.

At the top of each form is noted the commodity, purchase units, and the manufacturing division using this raw material. In a "Remarks" space immediately below these data are shown informative details regarding the final product, average monthly consumption for the previous year, units of shipment, time usually required for shipment en route, available storage capacity, and time required for delivery after date of order. Delivery dates are worked out with the purchasing department.

Five vertical columns in the body of the form are designed to list progressively the amount of material on hand at the end of each week, the amount used during the week, the cumulative usage of the material for the year, the amount of shipments, if any, that were received during the week, and a listing of orders outstanding for new material.

Fifty-two lines below these column headings provide space for entries for each of the 52 weeks of the year. Numbering these lines makes it easy to determine the average weekly usage for any time in the past. For example the average usage of weeks 3 to 12 can be figured by subtracting the accumulated usage on line 2 from that on line 12, and dividing the result by 10.

Additional notes on the right side of the sheet indicate the reasons for any wide variations in usage and serve as a basis for predicting whether or not such conditions may arise again.

All data on the sheet except that in

the "Orders" column is entered by clerical routine. The few notes in the "Orders" column are the results of executive scrutiny.

Once each week, the executive in charge of inventory control reviews the information on each sheet to determine what action is necessary to correct inventory plans in the light of current developments. Inspection of the columns showing the actual usage of a material, and comparison of weekly amounts with the average for, say, the past 10 weeks, indicate the variation that may be expected from the average and, hence, the minimum inventory the controller should plan to have on hand whenever a new shipment is received.

The success of this system depends upon the careful preparation of the past history from which the planner uses in combination with his knowledge of future production plans to arrive at an

estimate of future raw material needs. It depends also on the planner's knowledge of current supply conditions for each material, to guide him in determining when orders should be placed and what delivery date should be indicated. In practice, an experienced man can maintain close inventory control of 150 different raw materials in an hour and a half to two hours a week.

No basis of comparison is available between the results from the former methods and the present method. But this can be said: Shortages caused by failure to order are rare, and inventory turnover figures are better than average. Best of all, proper executive control has been made possible with a minimum expenditure of time.

By R. L. BOWLES. *Factory Management and Maintenance*, January, 1947, p. 94:3.

Federal Agency Helps Settle Wage-Incentive Disputes

WITH a staff of 17 industrial engineers and job specialists, the Technical Service Branch of the U. S. Conciliation Service assists management and unions on questions of wage incentives and intra-plant inequities—thorny issues these days, with management, on the one hand, seeking to install wage incentives to increase productivity and the unions, on the other, offering stiff resistance on the grounds that incentives were used against workers as "speedups" in the past and that they can and may be so used in the future.

When called into a case by both sides, the technical service's expert determines only the facts in dispute in the situation, leaving it to the disputants to reach a settlement on the basis of the facts. For instance, there may be a dispute over a workload, with the employee complaining that he cannot, at normal speed, produce the number of pieces required for him to earn whatever amount may have been agreed upon as a fair wage. By studying the worker on the job and making the necessary allowance for variable factors, the investigator will determine the number of pieces that normally should be produced in a specified time. Using the facts presented, the disputants will then determine the adjustments to be made, if any.

The technical service treats its reports as confidential. They are not permitted to be used either as arbitration awards or for the setting of industry-wide standards.

One of the agreements that came out of last year's labor-management conference was that the Technical Service Branch be strengthened. A labor-management advisory committee was set up to guide it.

Actually, the small staff of 17 is not equipped to handle much more than the 22 cases a month now being received, which is double last year's rate. But disputants desiring assistance usually can get it after a wait of two weeks. Exception is made for urgent situations.

—Business Week 11/23/46

How to Save on Shipping

THE trouble with most shipping systems is that there isn't any system to them. Products are palletized one month, crated the next. Workers do jobs on a hit-or-miss basis. Storage rooms look like uncharted forests. Sometimes it seems as if the product is supposed to find its way out of the plant alone.

Today, when lack of a single part can hold up a customer's entire production, when damaged parts mean more than just wasted materials, it's more important than ever to take a close look at final packing and shipping operations. Here are six major areas in which almost every plant can effect real savings:

1. *Package-Handling.* In almost every plant, too many people handle too many packages too often. By the use of conveyors, the John Graf Company, Milwaukee, was able to cut out four separate handling operations and reduce worker fatigue. Now, beverage cases are carried straight from filling machines to the storeroom. When trucks are ready to be loaded, the head shipper, using a throat microphone, calls out the products needed. Required cases are placed on the conveyor by shippers at each storeroom section and carried right into the truck. And the head shipper can be on the loading dock, checking shipments, instead of back in the storeroom.

2. *Work Standards.* Time-and-motion-study methods used to develop work standards can improve performance, too. For example, at International Harvester's Chicago Tractor Works, crews preparing machines for export shipment operate under the incentive-payment plan. Procedures used in tearing down machines so they can be crated for export shipment have

been timed and standardized, and output is held to schedule.

Hand in hand with work standards come new tools and jigs that do jobs faster and better and can be used in almost every plant.

3. *Packing and Loading Standards.* Some of the best work in this direction is being done by the Freight Loading and Container Section of the Association of American Railroads. AAR standards for crating, bracing, blocking and loading—available to all manufacturers—help protect products and reduce damage. Engineering advice is given without charge on freight car shipment problems.

4. *Paperwork.* At Kendall Mills, Walpole, Mass., shipping tickets are made in two sections. One is the label; the other serves as a record of shipment. One reason Kendall has been able to use a simple form is that each shipping ticket is for one item only. As far as possible, Kendall ships in single-product case lots. Orders for smaller quantities are discouraged. When they do appear, they're handled separately.

5. *Inspection.* Extra inspection operations can be slipped into the shipping line to help safeguard products. In one company, scales placed on conveyors give alert inspectors an extra check. Adjusted for 100-to-1 weighing, the scales eliminate counting small parts. Tables on the scales list standard carton weights.

Reversing usual shipping methods, H. P. Hood & Sons, Boston, sends a shipper into the refrigerator to collect shipments as they are needed. The shipper then stands by and checks the cases once again as they move to the truck. This double check cuts down delivery errors. The firm's order sys-

tem provides still another check. Every morning, each shipper gets a yellow sheet which contains the total order for milk, cream, etc., for each distribution point. Then, as he loads each truck, he makes out a white shipping ticket, exactly like the original order, but indicating the quantities placed in that particular truck. When shipping is complete, the total on the white sheets is checked to make sure it tallies with the original yellow-sheet order. (To save time, shipping orders are pre-printed. Only quantity need be added.)

6. Plant Planning and Remodeling. Often, poor shipping practice is built into plants. Loading docks are too high or too low for the trucks and cars they serve. Storage space is inadequate, or located far from the end of the production line. Elevators are too small for the most desirable handling equipment. That's why attention to shipping pays off in planning and remodeling plants.

The shipping department at the new Johnson & Johnson plant, Cranford, N. J., for example, will be a good deal less expensive to operate than the old one because packing and shipping requirements have been planned in advance.

In the old plant, packages were hand-sealed at the end of six production lines, and then moved on hand trucks to a warehouse some distance away. Six to 12 men were needed for the job. And, because package sealing was done in six different places, there weren't enough packages in any one place to warrant installing an automatic package-sealing machine.

In the new plant, conveyors from each production line will feed into a single shipping conveyor. The automatic package-sealing machine will be

economically practical. The whole job will be done by two men. Furthermore, the six feeder lines can be used for intermediate storage, and can be filled up so that packages are fed to the shipping department almost continuously, instead of in hard-to-handle spurs.

Packing and shipping are two of the last frontiers in plant operation. Most neglected, they offer tremendous opportunities to trim costs and safeguard quality.

Shipping isn't finished until the product is unloaded at the receiver's plant. So Corn Products Refining Company follows through with a poster and postcard addressed to receiving departments. The poster is cleverly designed to show the receiver how to unload the car without damaging the contents. To guide the company in preparing future shipments, the postcard asks the receiver to report the condition of goods on arrival. Both are tacked up in every outgoing car before it's loaded. They're ideas that any plant can put to work.

Here is a management check list that will enable you quickly to appraise the efficiency of your shipping system:

Are you eliminating hand labor by using: conveyors, overhead cranes, mechanized trucks, etc.; prefabricated boxes; automatic sealing machines?

Are you cutting down waste time and effort by: (a) setting up plant for in-line production so that products go directly from assembly to packing and shipping; (b) centralizing final packing in one place so that workers can be kept busy continuously (also permits use of machinery which might otherwise be too expensive); (c) setting up definite, well-labeled storage areas for each product so that time need not be wasted in hunting for materials to fill orders; (d) handling products in unit loads rather than one at a time; (e) prescribing standard packing and shipping procedures to enable workers

to know exactly what to do and how to do it; (f) multigraphing quantity and part number on boxes, instead of writing or hand-stamping information?

Are you eliminating paperwork by: (a) reviewing forms to make them as simple as possible; (b) using one master copy to produce labels, shipping orders, record forms, etc.?

Are you saving space by: (a) shipping partial orders as soon as they're completed; (b) combining shipping and receiving warehouses so that one operation can use space left over from the other (generally their peak loads will fall at

different times); (c) using "universal" containers and imprinting them with special information so that only one type need be kept in stock instead of two or three; (d) using conveyors for intermediate storage where possible?

Are you preventing errors by: (a) using scales and automatic machinery in place of hand counting when parts are packed; (b) double-checking packed containers by using scales or other simple inspection devices in shipping line?

Modern Industry, October 15, 1946,
p. 43:5.

Routing Trucks

THE inter-plant communication system at the Spicer Manufacturing Corporation, Toledo, Ohio, is aimed at achieving the most efficient use of power trucks. To facilitate the delivery and removal of materials, an internal truck department was created, and two central control inter-communication systems were set up—one for each section of the plant.

In the truck dispatcher's office, the two control systems are mounted on a large desk. Seventeen substations, placed at strategic points, provide complete coverage of the plant. Nine substations in one section of the factory are tied in to one central control station and the balance to the other. All substation equipment is on shelves.

A control chart in the dispatcher's office is painted with an outline of both sections of the plant. Holes drilled in the board show the location of each department and of each of the 17 control stations. Pegs numbered to represent different trucks are placed in the holes representing different departments to indicate at all times where any truck may be. Information is provided through the inter-communication system as each truck operator, upon completion of a job, calls the dispatcher through one of the substations and reports that he is ready for another assignment.

—*Dun's Review* 10/46

Sale Cures Monday Absenteeism

MONDAY'S record absenteeism has been turned into a nearly 100 per cent attendance at an Eastern candy factory. The company's public relations department found that a noon auction of nylons, electrical appliances, and other scarce items helped boost employees over the hurdle of the Monday stay-at-home feeling. Now the week's production gets off to a good start because the workforce is at full strength. Also employee morale has been noticeably pepped up.

—*Factory Management and Maintenance* 12/46

AMA SPRING PRODUCTION CONFERENCE

A Conference of the Production Division of the American Management Association will be held on Thursday and Friday, April 24 and 25, 1947, at the Hotel New Yorker, New York City.

Marketing Management

Don't Fool Yourself About Free Deals

A NY manufacturer who contemplates resorting to merchandise deals should check his use of them against a number of hidden factors—and some that are not hidden. Quite obvious is the factor of legality of the use of the word "free." Not so obvious are the false economics of doing business on a deal basis.

There are special objectives that can be reached most efficiently by the use of extraordinary stimulants. A manufacturer offers extra merchandise in return for unusual services on the part of the retailer. It is worth the cost of the bonus goods to the manufacturer to get the retailer to help him introduce a new product, for example.

On the other hand, it is false economics to use free goods as a permanent sales stimulant of the trade. Too many deals when boiled down to their essence turn out to be no more than a dramatic way of disguising a price cut. A price cut means a shortened profit for manufacturer, jobber, and retailer.

In fields that have not yet returned to a highly competitive situation, it may be possible for manufacturers to refrain from going back to a free deal system of sales stimulation. Stationery stores, for example, have not been the objective of free deal campaigns since prewar days. The suppliers in this field should stop now to consider the future, when they will be again up against stiff competition, and predetermine whether it will be advisable in the long run to revive the phony sales line about "something for nothing."

If they revive free deals, the probable sequence of events will be: One manufacturer finds that he and his competitors are no longer held back by materials shortages. Suddenly there will be competition to meet, and he will say to himself: "Now is my chance to get the jump on the other manufacturers of merchandise like mine. I'll offer the stationery retailers one extra dozen of my brand with every gross that they order—at no extra cost. The retailers will grab the chance to get something for nothing. They'll stuff their shelves so full of my brand that there won't be room for them to buy any goods from my competitors."

And it *will* work! The retailers will fall for the gag about something for nothing, *but*—

1. The manufacturer will have to produce an abnormal quantity of merchandise to meet the abnormal demand for the free deal. It will throw his production schedules all out of kilter. After the dealers get stocked up, they will not buy again for a longer than normal period. He will have to slow down his production to a level far *below* normal. His costs of production will rise sharply for the year.

2. It is true that the manufacturer will actually be giving away something for nothing. The something will cost him money to produce. Heaven forbid, but he may commit the cardinal sin of charging it off to advertising. If he does, the promotional campaign which has been developed to the point where it will sell most efficiently will be sabotaged. His advertising cost will rise.

Consumer acceptance of his brand will decrease.

3. The retailers will overload their shelves. This will lead to inefficiency in the storage space in their places of business; and it may lead to misuse of valuable display space. If the item is normally a slow mover, the retailer will be tempted to get rid of it as fast as he can to recoup the unusually large investment committed in the quantity deal. He may place it in display areas that should be reserved for items that turn over so rapidly as to earn preferred position in the store.

4. The retailers, realizing they have to find some way to get rid of the stuff, will cut the price to the consumer, figuring they can almost retain the normal margin of profit because of the extra dozens received at no cost.

5. The retail price of competing brands will have to be reduced to meet the new low price. Other manufacturers will meet the price cut in one way or another, and a price war will be on.

6. All manufacturers, jobbers, and retailers in the field will sell approximately the same total volume at a reduced margin of profit. All elements of the trade will suffer.

7. If the product that has been forcibly overstocked is a perishable item, returned goods will jump to a much larger figure.

8. If the merchandise deal is arranged to clear through the jobber, he will be forced to carry an excess load of accounting that will shorten his shortened margin of profit all out of reason.

9. Retailers will henceforth order only during the periods when a free deal is in force; and the cut price that was introduced to "get the jump on the competition" will become a perma-

nent headache for the manufacturer who started it.

The colors in this verbal picture have been weighted on the melancholy side with a purpose. It cannot be too strongly emphasized that merchandise deals are price cuts; and that any reduction in a legitimate margin of profit is an emergency measure and should be used in an emergency only.

Merchandise deals should always be checked against the possibility that elements in the trade will overstock just for the sake of saving a few pennies on the deal.

If the deal will get more goods traveling directly to the consumer, it will prove profitable. But if the deal will simply push the merchandise into the dealer's store where it will stop, it will be unprofitable.

When extraordinary devices are used to move merchandise into the retail stores, extraordinary promotion should be added to regular advertising to move the goods out of the retail stores into consumer homes. The manufacturer should precalculate how much extra advertising will be needed to keep dealers from getting overstocked during the period of a merchandise deal. The manufacturer should develop extra store display to accompany a deal; should schedule a concentration of national advertising during the time that the deal will be in operation; should facilitate over-the-counter sales (if he can do so without interfering with his fair trade policy) by coupling the merchandise deals to retailers with a similar free goods offer to the consumer.

The word "free" as applied to merchandise deals is outlawed by the Federal Trade Commission. The following is the position of the Commission, stated by a representative in no uncertain terms:

It is the Commission's position that the word "free" may not be properly used to designate articles that are offered in connection with the purchase of other articles and delivered only upon condition that some other article or articles be purchased.

This effectively eliminates the word "free" from use in trade advertising about merchandise deals. Some advertisers avoid the word by offering "extra" goods, "bonus" goods, a merchandise "premium," and other terms expressing the same kind of offer. Some disregard the FTC and continue to offer *free* deals.

Before initiating a merchandise deal, a manufacturer should carefully check over the effect of his action on all distributive elements, including jobbers, distributors, chain buyers. If he does not, he may unwittingly work a hardship on one or another of these important customers, with consequent loss of good-will and possibly of patronage.

Printers' Ink, November 15, 1946,
p. 72:4.

Family Income and Assets

NEARLY half of America's families have incomes below \$2,000 per year, and two out of three of them receive less than \$3,000, it was revealed in a joint survey of the Federal Reserve Board and the Bureau of Agricultural Economics.

The figures represent the combined income of all members of each family based on 1945 income before taxes. As 1945 was a record year for individual income, the current average is believed to be less than shown in the survey.

About one in 10 families had pooled incomes of \$4,000 to \$7,500, and only one in each 33 or 34 had joint incomes totaling more than \$7,500.

These findings supplemented earlier announced results showing the mass of American families had no substantial amount of quickly cashable assets and two out of every five average less than \$40 each in savings bonds, other securities, and bank deposits.

The new report showed the financial condition of the families which constituted the median, or middle group, in each income bracket as:

Under \$1,000—median income, \$600; median assets in savings bonds, other securities and bank deposits, \$20. \$1,000-\$1,999—median income, \$1,500; median assets, \$230. \$2,000-\$2,999—median income \$2,400; median assets, \$470. \$3,000-\$3,999—median income, \$3,300; median assets, \$900. \$4,000-\$4,999—median income, \$4,300; median assets, \$1,450. \$5,000-\$7,499—median income, \$5,500; median assets, \$2,700. \$7,500 and up—median income, \$10,000; median assets, \$7,270.

—*The Employment Counselor* (Employment Counselors Assn. of the United States) 1/47

Who Selects the Advertising Agency?

A COMMITTEE, rather than a single officer, usually selects the agency in which the company places its advertising account, according to the findings in a recent survey by *Printers' Ink*. Of the 71 cases studied, agency selections were made by a committee in 45 instances—by a single officer in 26.

A breakdown of the cases where both single officers and committees were involved indicates that presidents were mentioned 49 times, vice presidents, 32, advertising managers, 31, and sales managers, 19.

The survey indicates that top management takes an active part in agency selection, and that the advertising manager is also a very important factor, even when the selection is made by a committee.

In a number of such cases, particularly those of several large advertisers, the advertising manager has the preliminary job of screening agencies to be invited to make a presentation before a committee. He is an important person, both in the consideration and selection of agencies. If the agency sells him, the job of selling the president or a committee will be an easier one, for he will put on the pressure to see that his choice is finally selected.

—*Printers' Ink* 12/27/46

Air Cargo Growth Augurs Shifts in Marketing Strategy

AIR freight is still a long way from the "Big Business" category, but its growth within the last year has astonished all observers. Meanwhile there's a mad scramble among the various interests which stand to benefit or lose through this fast-rising development.

New markets are being created and the entire distribution picture for some commodities is changing, as facilities for shipping by air become more readily available.

In this new and rapid change in the techniques of distribution, new patterns of advertising are implicit. With the old and slower distribution, much advertising has been planned far in advance and has had relatively little timeliness in its design. Now it must speed up and be aimed more directly at those markets that will be served by air cargo. Because the sales executive must take on a new and complicated problem of distribution, merchandising, and fast turnover, he must coordinate with it a special pattern of consumer advertising that is keyed to his distribution pattern. In both distribution and advertising, he may in some cases actually find himself operating on two levels—one the old and traditional ground level, and the other the level of air cargo. For in air cargo he will more than ever select markets to be pushed, and will devise and approve sales and advertising procedures in those selected markets.

The revolution does not stop there. Media of every kind are on the receiving end of these changes. They are finding new sources of business, new contacts, new reasons for contact with old accounts, and a faster tempo in that phase of their national advertising that deals with products shipped by air.

Here's an example of the way in which distribution is being affected by the new development. Buzzza-Cardoza, Inc., Los Angeles greeting card manufacturer, formerly maintained a New York warehouse, to which merchandise was shipped in carload lots, for reshipment to points along the Eastern Seaboard. The warehouse was recently discontinued. The company is now shipping by American Airlines "Airfreight" to customers, and it claims it gives just as quick service as it previously did from the warehouse. Even though rates for air freight are higher than for rail haulage, the firm profits by cutting down its inventory and saving the expense of operating a New York warehouse.

Rates vary widely but are tending toward stabilization, always downward. The figure of 60 cents a ton-mile for three years ago went down to about 40 cents a year ago, and in many instances is below 20 cents now. Air Cargo Transport Corporation, one of the most aggressive and successful of the new cargo lines, claims to have been the first to establish a 20¢-a-ton-mile rate, as well as the single unit cargo classifications. Both American and United Air Lines now charge 17½ cents a pound for shipments of 16,000 pounds across the continent, or as little as \$5.60 per hundred pounds on shipments of 16,000 pounds sent from New York City to Chicago. American has brought full DC-4 plane loads on contract across the continent for as little as 11 cents a ton-mile. Twelve of the regular air lines are now working, through the Air Transport Association to which they all belong, toward consolidating their air freight tariffs, with the object of offering nationwide interline cargo facilities to shippers.

Air Express (through Railway Express Agency) has also reduced rates to 61 cents per ton-mile for its special service, which includes fast pick-up and delivery, and routing on earliest available planes of any of the regular carriers.

Plastics have entered the air cargo picture, with the rapid development of peacetime shipping of perishables and clothing by plane. Flowers, now shuttling up and down, and across the continent in both directions, are protected by cellophane and waxed paper. Amling's of California, large flower-grower, has developed decorative, but lightweight, packages for gardenias, orchids, and violets shipped by air, and a special "FAD" (flowers air delivery) label.

The fashion industry is using large quantities of transparent plastic film to cover dresses which are flown on hangers in racks, and which arrive clean, fresh and ready for sale.

For merchandise affected by changes in altitude and pressure, special air-shipping methods have been devised, and experiments along these lines are still being conducted. Various new packaging techniques were evolved during the war, when it became necessary to send many kinds of matériel and troop supplies by plane. One such technique was "canning" delicate and valuable instruments to give protection against moisture and to save bulk. Coatings were also used. "Seal-Peel," a new plastic coating, was spectacularly demonstrated in October, through an "around-the-world" flight of merchandise protected only by the coating.

A straw in the wind worth watching is the bid for the patronage of air shippers made by The Manhattan Storage & Warehouse Company, New York

City. Even before the war was over, Manhattan started using full pages in business magazines to advertise its special "Air Cargo Packing . . . for *Airobution*." The company has a special department for air cargo packing and distribution, which has conducted experiments in this field. One of these was the parachuting of delicate merchandise, from various heights, to test packaging methods. Glassware, china, phonograph records, bottled medicine, and radios are among the items which successfully survived drops from an elevation of 250 feet in cargo parachutes manufactured by Switlik Parachute Company.

Industrial products should have an average intrinsic value of at least \$1 a pound, before they can generally be considered "air candidates," according to the recently issued Fairchild Aircraft report on *Air Potentials in the New York Women's Apparel Industry*. There are probably times when, because of special circumstances, such as the necessity for speed, shippers and consignees consider air shipment justified for less expensive industrial items. A surprisingly long list of machines, parts, and relatively heavy articles have been shipped by air in recent months. For example, Slick Airways has flown a plane load of Rototiller farm machines (combining the work of plow, disc, and harrow) from Graham-Paige Motors Corporation, adjacent to Willow Run airport, to Oakland. Salesmen and dealers are receiving various kinds of samples by air—a trend which may taper off when merchandise becomes more plentiful.

An executive of the Reynolds Pen Company, credits air delivery with the firm's ability to get more than a million pens to retailers last year in time for

holiday shopping. The company reported a sale of more than two million pens in seven months, most of them delivered by air, "the airline spelling

the difference between success and failure."

By ETNA M. KELLEY. *Sales Management*, January 15, 1947, p. 87:8.

CORRECTION

On page 531 of the December, 1946, issue of the REVIEW, a typographical error gives the source of the publication *Distribution Cost Analysis* as the U. S. Chamber of Commerce. This study actually was published by the U. S. Department of Commerce (Bureau of Foreign and Domestic Commerce), and is obtainable from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., at 15 cents per copy.

Financial Management

Protection Against Open Pricing

MANY buyers will be forced to accept some form of adjustable pricing for a good part of 1947—especially where seller's costs still point upward and where delivery schedules are overextended. But as the supply situation improves, buyers will have a real chance to eliminate abuses and make adjustable prices work to the mutual benefit of both seller and buyer. This article is concerned with the safeguards buyers can take now to obtain more favorable terms in contract negotiations.

In *government contracts*, escalator clauses are clearly on the decline. The Advisory Committee on Procurement Policy recently urged elimination of escalator clauses wherever possible. Procurement agencies are certain to follow this view in most of their new buying. Some large suppliers are said to have been approached on this subject within the last few weeks and escalator clauses dropped on some contracts.

Trade buying is moving in the same direction, though a little more slowly. Large department stores and buying

offices are reported resisting a wartime practice of open pricing, especially on most soft lines. But the main drive comes from manufacturers, who see their own planning and selling jeopardized by cost uncertainties.

The situation seems most serious in building and equipment costs—and that's where the first breaks are occurring. Three large producers of raw materials and equipment recently started to take orders at firm prices again.

These moves can have far-reaching effects. The companies now selling at fixed prices are pressuring their own purchasing departments to get firm commitments from their suppliers and the process may snowball.

Set Basis For Price Changes. Despite these tendencies, your supplier's situation may make some form of price protection inevitable. In such a case the *buyer should watch carefully the basis on which prices may be changed*.

It's risky to agree simply to "prices in effect at time of delivery," except for highly standardized products with

uniform market quotations. There's more buyer protection in tying price increases to rises in "total manufacturing costs," or the costs of "raw materials and labor." A few contracts go into greater detail and enumerate the materials involved. Others provide for changes in tariffs, freight rates, taxes, or increased costs resulting from legislation on taxes, working hours, or wages.

No matter what basis best fits your case, keep two objectives in mind: The selected cost elements should be few, easy to trace, and easy to measure. And they should preferably be limited to actual and direct costs. The buyer should guard against clauses that may stick him with higher overhead or losses sustained by the supplier in connection with other work.

Compute the Adjustment. No clause is effective unless it permits easy and undisputed computations of price changes.

Formula clauses are strongly favored because they're easy to apply. For instance, material costs may be related to published prices or recognized indexes, and specified adjustments made as these change. A similar formula is provided on adjustments for wage changes.

Where the seller's actual costs are the determining factor, the buyer should have a clear agreement in advance covering the detailed cost data which must be submitted as proof—providing for a breakdown of estimated labor, material, and overhead to permit an easy comparison.

Especially where actual costs are used, it's advisable to limit price adjustments to substantial cost changes, such as those over 3 per cent. A similar goal can be achieved by stating that prices can be revised only once every

few months. The chemical industry, for instance, traditionally sells on yearly contracts which provide for price review by both sides after 90 days, if necessary.

Buyers should work for a maximum limit on permissible price changes, such as 10 per cent of the quoted price. With the end of inflationary trends definitely in sight, most sellers shouldn't object very strongly. In any case, the contract should expressly limit any price boost to the amount of the cost increase. To grant the seller added profit on higher cost is an open invitation to trouble, especially on a major contract, as government procurement officers know from long experience.

Adjustments Should Cut Both Ways. More and more escalator clauses are providing for a *decrease* in price as well as an increase. Since a general business recession this year is still a possibility, such mutual protection seems particularly justified. It may be inevitable if large numbers of buyers continue their present tendency to limit coverage to a maximum of six months.

Reserve the Right to Cancel. Buyers are increasingly insisting on the right to cancel if they're dissatisfied with the price at delivery. It is advisable to specify the terms of such cancellation privileges in the contract. As a guide, note that some sellers agree to cancellation outright; others assess an unspecified charge. Some sellers use another device: If the buyer can find lower prices elsewhere, the seller agrees to meet them or cancel.

An option to cancel is often a doubtful advantage, especially where price changes usually occur industry-wide. It's simply a question of how scarce the goods are, how badly you need

them. In general, market conditions are changing so quickly today that in most cases buyers can take a chance on finding sources of supply.

Drafting a satisfactory escalator clause is a really complex job and should be assigned jointly to the com-

pany's purchasing agent and legal counsel. Some trade associations have been extremely helpful in providing a clearing house and rating bureau for price adjustment clauses.

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Insurance

The Case for Insured Pension and Profit-Sharing Plans

TO provide a basis for comparing the insured method and trustee method of funding pension and profit-sharing plans, let us consider briefly the major characteristics of each.

Under the insured method the company receives a contract which provides a certain scale of rates based on a certain interest and mortality factor, with a loading in the rate to cover expenses and to provide a margin for building up some contingency reserves. While the insurance company reserves the right to change this scale of rates after the first five years, each year's payment purchases a guaranteed annuity for each employee for that year's service and a portion of his past service annuities. With the rate guarantee goes a table of factors applying to such matters as the amount of income that may be continued to a joint annuitant if an employee elects to have the income continued to a dependent after his death. The insurance company guides management in the announcement and installation of the plan and in the setting up of a practical accounting system. The insurance company takes the

responsibility of keeping track of ex-employees with vested rights and paying them their annuities when they fall due, for proper settlement of death claims, and for following retired employees to see that their checks are received. Most important of all, at any given point *the annuities which have been promised for the employee up to that time are fully guaranteed by the insurance company.*

Under the trustee method a plan is set up which promises certain benefits. Management may ask for some employee contributions. It then asks the advice of a consulting actuary about what must be put aside each year in addition to these contributions. This money is turned over to a trustee, usually a corporate trustee, for investment.

The actuary cannot be held responsible if the trustee does not earn the money which the actuary assumed he would; the trust company is certainly not responsible if the mortality turns out to be different from what the actuary assumed it would be. Nor, for that matter, can the trustee be responsible for what the fund earns unless

management gives him carte blanche in investments, and even then he will make no promises beyond guaranteeing honest handling of the money. Yearly valuations show the status of the fund and provide a check on the assumptions used in the light of actual experience. However, the responsibility is on management, present and future. While the employer may, under this method, avoid any legal guarantee of the benefits under the plan, the presentation to the employee is usually so drawn that he understands that he is to get a certain income at retirement. This puts management under a moral obligation to see that the benefits are provided and, if the plan must be discontinued, that the benefits accrued to the date of discontinuance are provided. Thus management is, in effect, establishing an insurance company for the handling of benefits involving not only an investment factor but a mortality factor, with an actuary and a trustee to assist in the enterprise.

It has been argued that a trustee plan gives the employer more flexibility. But is it flexibility in the application of the provisions of the plan—for example, that of earlier retirement without actuarial reduction in the annuity, or vesting on termination of service at the discretion of the company? The Treasury Department has seen to it that this type of flexibility must be eliminated. Is it flexibility in the granting of optional forms of income without medical examination or advance notice, thus undermining the actuarial soundness of the fund at the expense of the interests of other employees or future managements? Is it flexibility in making payments to the fund so that the employer is free to pay as little or as much as he wishes

in any year? Any flexibility which does not maintain the normal costs of future benefits as they accrue is simply the right to make the fund actuarially unsound.

Most companies which adopt trustee plans actually believe they are saving 8 per cent to 30 per cent in cost. The factors that enter into costs are interest assumption, mortality assumption—possibly coupled with turnover assumption, and expenses of handling. Depending upon what assumptions are used, cost estimators can come out with almost any figure.

First, regarding the interest factor—some insurance companies guarantee 2 per cent interest, some 2.25, others 2.5 per cent. The banks usually assume 2.5 per cent interest with no guarantee. Actually all major insurance companies in the group annuity field have earned on an average more than 3 per cent over the past 10 years. If management feels that security is of the utmost importance and restricts the bank to, say, government securities, the cost figure based on a 2.5 per cent assumption becomes meaningless. It should be kept in mind that the basic investment distinction between an insurance company and a trustee is this: Funds with the insurance company are merged with that insurance company's total assets for investment purposes. Funds with the trustee must be segregated and separately invested in a new portfolio with relatively small additions to the fund, month by month.

Mortality assumptions will differ, depending upon the mortality table used. In 1929, insurance companies adopted a mortality table which was used for group annuity contracts, known as the Combined Annuity Table. In 1939, they adopted what is

known as the 1937 Standard Annuity Table. Most consulting actuaries stick to the old Combined Annuity Table or else use this table with a one-year modification, which brings it approximately half-way between the Combined and the Standard. If the Combined Annuity Table is the basis of a so-called cost estimate obtained from a bank this will account for 12 per cent of the difference in their figure and the insurance company figure. If the actuary uses the Combined set back one year, this will account for 8 per cent of the difference.

The third important factor in comparative figures as to initial outlay is the expense factor. The insurance company's rates include an 8 per cent loading for expenses and contingencies. A substantial part of this loading is for the purpose of setting aside contingency reserves which will take care of future fluctuations in interest earnings and mortality experience. While expenses come out of the 8 per cent, the loading is also intended for the establishment of a safety margin in the long-range fulfillment of guarantees. On the other hand the banks' or consulting actuaries' figures do not contain one cent for expenses or contingencies. Therefore 8 per cent of the difference in this so-called cost comes from this omission alone.

Now let's consider what may actually be expected in the future under the two methods in the way of net cost. Whether the plan is trusteeed or insured, the same amounts will be paid out as benefits. In other words, mortality will be whatever it is, regardless of the rate assumption used. Factors affecting net cost, therefore, are interest earnings and expenses. There is a question as to whether 2.5 per cent

interest can be earned under a new and slowly built up trust fund under today's investment conditions. The insurance companies are earning more than that. While no one can predict the future, insurance companies' investment records over the past 10 difficult years are something to brag about. Large corporate investors are in a strategic position to get a fair return from borrowers of money, and insurance companies have open such avenues of investment as housing projects which are not available to a bank trustee.

Finally, we come to the matter of expenses so conveniently omitted from that 20 per cent cost saving. While expenses differ, the average for all cases, large and small, runs between 2.5 and 3 per cent of total premium income. The ratio is smaller for large companies. The expenses under a trustee plan are, first, the fee to the trustee. This is a graduated fee, declining percentage-wise as the amount of the fund grows, but it is an annual fee based on the fund invested each year, so that the fee increases as the fund grows. Over the first 10 to 12 years, benefits paid out of the fund are nearly all absorbed from interest earnings, so that the employer can get a fair approximation of the size of his fund by totalling up his past service liability and adding in the first 10 years' future service payments. The fund will probably continue to grow before it reaches its peak, but if it is assumed that in 10 to 12 years most of what has been paid in lies in the fund, then determine what the trustee's fee will be at that time, and take this as a percentage of your current annual payment to the fund. You will be astonished at the figure. Add to this

the actuary's annual fee. Add to this administrative expenses of making claim payment, etc., which the employer can handle himself at cost, or can pay the bank an additional amount for handling. In a number of typical larger cases figures confirmed by the independent actuary or bank have shown that, in the course of time, the expenses will be running from 4 to 5 per cent of the annual payment to the fund—this compared with 1.5 to 2 per cent insurance company expense for a contract covering 1,000 or more lives!

This analysis is significant, primarily, as it affects larger companies. Naturally, the smaller the company the more meaningless the actuarial factors involved become. But to the company with 150 to 250 employees, the best argument for insuring the plan is the fact that insurance companies can't

promise dividends for a long time to come. The only way insurance companies can guarantee incomes to employees of small companies is by pooling the mortality experience and holding the gains for an indefinite period for contingency reserves, since the actual experience of the small group of lives will not at any time bear any resemblance to the tables based on many thousands of lives. The employer's concern is not with net cost but with buying dollars of guaranteed income at a retirement date for a fixed price. Only insurance companies can do this by pooling the risks of one company with those of hundreds of others.

From an address by John M. Hines before The Controllers Institute of America.

(Note: An article presenting the case for trusteeing pension and profit-sharing plans will appear in the April issue of THE MANAGEMENT REVIEW—ED.)

• DESTRUCTION BY FIRE in the United States neared record figures during 1946, with total losses estimated at \$561,487,000, an increase of 23.3 per cent over losses of \$455,329,000 in 1945, it has been announced by the National Board of Fire Underwriters. The all-time high is \$561,980,751, set in 1926.

Losses during December, 1946, set a new record for a single month. They were estimated at \$58,094,000—the highest since the National Board began tabulating losses on a monthly basis in 1929.

—The Insurance Index 2/47

AMA SPRING INSURANCE CONFERENCE

A Conference of the Insurance Division of the American Management Association will be held on Monday and Tuesday, May 5 and 6, 1947, at the Hotel New Yorker, New York City.

Survey of Books for Executives

THE EVOLUTION OF BRITISH MANAGEMENT

THE MAKING OF SCIENTIFIC MANAGEMENT: Volume II—*Management in British Industry*. By L. Urwick and E. F. L. Brech. Management Publications Trust, Ltd., London, 1946. 241 pages. 7s. 6d.

Reviewed by Harry Arthur Hopf*

The British historian, G. N. Clark, draws attention somewhere to the fact that "it is a fundamental principle of the evolution of industry that a change of tools or machines brings with it a change of business organization and of the human relationships which that dictates." This observation has a significant bearing upon the ground covered and viewpoints advanced by Messrs. Urwick and Brech in the second volume of their ambitious work, *The Making of Scientific Management*. Under the sub-title, *Management in British Industry*, the volume employs as its main point of departure that remarkable and unprecedented period in British history to which another British historian, Arnold Toynbee, first applied the descriptive term, Industrial Revolution.

Prior to that period there had been, as characterized by economic historians, three successive stages in the development of British industry, namely, the family system, the guild system and the domestic system. Each of those stages represented in effect a slow growth, requiring centuries for its consummation under circumstances which, with respect to developing village and town economies, were largely self-sustaining and guided altogether by tradition. When the fourth stage, the factory system, was ushered in during the second half of the eighteenth century, unprecedented conditions were created in a concentrated period of time as the result of the needs occasioned by a bewildering series of inventions in the field of power-driven machinery.

Something new, disruptive of the old order, and initially unmanageable, entered into the lives and activities of vast sections of the British people, engendering problems whose solution for many decades to come was to

evade the combined wisdom of political, industrial and social leaders. What was actually happening as the result of constantly growing economies achieved through the use of machinery and power was, as Hobson puts it succinctly in his *Evolution of Modern Capitalism*, "(1) to increase the size of the individual plant and establishment, employing a larger co-operative unit of capital and labor to produce a larger output; (2) to increase the size and importance of capital in comparison with labor; and (3) to produce greater differentiation and specialization of capital and labor, so as to give increased complexity to the business unit" (p. 126).

It is from circumstances such as these that the authors derive justification for the assumption that something approaching the character of what we now know as management must have found a fruitful ground for application. They observe in the first chapter of the volume under review, dealing with management in the industrial revolution:

By the time that F. W. Taylor first outlined his principles, Great Britain had been an industrial country of the first order for nearly a hundred years, with roots that stretched back for more than one and a half centuries. It would be natural to suppose that some form of management had developed during these many decades. . . . In other words, "scientific management" was not an invention, a new idea which occurred suddenly to the fertile brains of F. W. Taylor and his colleagues. It was merely the codification and restatement in coherent and logical form of the essence of a host of practices which had been developing in the best managed factories over a very long period (p. 7).

The reference to Taylor is, of course, a repetition, more sweepingly expressed, of the thesis advanced by the authors in the first volume of their work, which was made the subject of analysis and discussion in the January and February issues of *THE MANAGEMENT REVIEW*. The reviewer recurs to the matter here in order to point out that, whereas only one so-called "pioneer" of the thirteen listed predated Taylor, a fact which renders the position taken by the authors untenable, there can be little dissent from the general proposition that, at various times in the century or two preceding Taylor, management of a kind was in effect—not alone

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in Britain but also in the United States and other countries, such as France, Holland, Germany, Austria, Italy, etc., or wherever industrial, commercial, political or other types of activity had assumed organized form.

To do justice to the second volume as a whole, it is essential to create a frame of reference with the aid of which the ground traversed by the authors may be viewed in comprehensive and sound perspective. This is not an easy task, because the organization of the material which the authors have introduced into the second volume leaves something to be desired in the form of coherence and logical order of presentation. As a matter of fact, the sequence of the thirteen chapters included in the book is practically identical with that which obtained when the material was published in loosely organized form in the issues of *Industry Illustrated*, the British management journal, during the period from late 1942 to the early part of 1944. For present purposes the reviewer has, therefore, taken the liberty of rearranging the chapters in the order indicated below, which he plans to follow in the presentation of his critical analysis and comment:

Chapter	Title
I	Management in the Industrial Revolution
II	The Commercial Aspects of Management
V	Manufacturers in the Industrial Revolution
III	Scientific Management in Practice I
XI	Scientific Management in Practice II
VII	The Acceptance of F. W. Taylor by British Industry
VI	The Beginnings of Modern Management
X	Some Early Textbooks on Management
VIII	The Administrative Training of the Engineer
IX	Training for Management in the Commercial Professions
IV	The Pioneer of Personnel Management
XII	The Human Factor in Management
XIII	Retrospect and Prospect

By way of brief explanation of this rearrangement, Chapters I, II, and V deal broadly with background considerations; Chapters III and XI consist of two case histories separated in point of time by a little more than a century; and Chapter VII furnishes an explanation of the difficulties which stood in the way of acceptance by British industrial circles of the principles advocated by Taylor. Chapters VI, X, VIII and IX have to do with early books in the field of management and with the vitally important factor of training. The remaining chapters, IV, XII and XIII, are devoted principally to a delineation of what the authors conceive to be the dominant emphasis now resting upon the human factor in management. The final chapter, moreover, is in the nature of a summing up of previously advanced considerations.

Into the construction of the foregoing

frame of reference there enters one important element which, to promote a better understanding of what follows, should be emphasized at this point. It concerns the matter of definition. "Management," the authors state (page 12), "may be defined briefly as planning, co-ordination and control." This definition leaves no room whatever to accommodate, even by inference, the concept of organization, which has both static and dynamic aspects of vital and continuing concern to management. In the judgment of the reviewer, management should be defined as the direction of an enterprise, through the planning, organizing, co-ordinating and controlling of its human and material resources, toward the achievement of a predetermined objective. *Scientific management* should be reserved for some time to come as a term to connote the school of thought of Taylor, his co-workers and disciples. The *scientific approach* to management is a phrase which should be employed to designate procedures sanctioned by utilization of the *scientific method*, which rests upon observation, experimentation and verification; *science in management* is the end-product resulting from the correct and uniform utilization of the scientific method.

We come now to a detailed consideration of the thirteen chapters devoted to an exposition of management in British industry. That the authors have done well to choose the period of the Industrial Revolution as their point of departure cannot be gainsaid, for it enables them to link their previously quoted thesis closely to the one period of British economic history which in all likelihood may be utilized most effectively to establish a plausible case in its support. And yet, have they really focused their attention sharply enough upon significant trends to establish even a *prima facie* case for their contentions?

As E. L. Woodward, the British historian, explains in his monumental volume of the *Oxford History of England*, entitled *The Age of Reform, 1815-1870* (pages 37-38):

There was, about the year 1815, an increase in the rate of change, a greater stir and movement in every sphere of public activity. The causes of this more rapid tempo of change can be summed up, roughly, in the term "rational and purposive control," based upon measuring, counting, and observing. The extent of this application of reason is sometimes overlooked because the plans were made and carried out, especially in the production and distribution of things, largely by individuals working for private gain. Something like an anarchy of individual profit-seeking was the first stage in the development of a planned order of society. It was necessary for men to apply reason to the management of their own enterprises before they learned how to use their new instruments of production, the new methods of administration and government, on a larger scale.

Woodward goes on to characterize as one of the most important facts of the age the emergence of a class of manufacturers and business men who, in the words of G. de Ruggiero (*Storia del liberalismo europeo*, p. 104; English translation by R. G. Collingwood)

knew nothing of the cult of tradition, custom, and inherited beliefs which Burke described as characteristic of the whig landed autocracy. . . . They had acquired through their own activities a very different mental outlook. They regarded the cult of tradition as bound up with the old regime of guilds, of governmental regulation, and an un inventive technique. . . . These industrial leaders were rationalists . . . who had learned to weigh every act, to secure that these acts were mutually consistent and in harmony with a desired end. They made in this way a complete break with the modes of their predecessors who were content merely to imitate their fathers. Modern industry, like everything else modern, is the child of rationalism.

In the light of this authoritative interpretation, one is justified in describing the habitual mode of thinking of manufacturers and business men during the Industrial Revolution as rational rather than scientific, and thus separated by a wide gulf from the viewpoints that animated the proponents of scientific management. Curiously enough, this pronounced distinction, applied to a much later period, was emphasized to the fullest extent by H. P. Kendall, American industrialist, on the occasion of the first conference on scientific management, held at the Amos Tuck School, Dartmouth College, New Hampshire, in 1912. At that time, he read a paper under the title, *Types of Management: Unsystematized, Systematized and Scientific*, in which he clearly distinguished among the three specific types indicated and left no doubt in the minds of his audience as to the true character of scientific management.

What the authors have to say on the subject of management in the Industrial Revolution is extremely interesting, and their desire to "paint a vein into the body of British economic history" is one to which support should be freely accorded. With commendable modesty, they embark upon their task and present a picture which they suggest "will be to some degree new to many industrial executives." They believe that in the records of some firms whose history goes back a century and a half lies a rich field for research into a "most interesting aspect of (our) economic evolution." They stress the very limited research that could be undertaken during a war and "lament the degree to which historical records ignore the element of control in the Industrial Revolution."

The second chapter, which concerns itself with the commercial aspects of management,

makes a point of bearing down heavily upon the function of control and singles out for emphasis in this connection the evolution of accounting and cost accounting. American students of management will be somewhat astonished to note the restricted interpretation given by the authors to the function of control, and especially what would seem to be an artificial distinction expressed in the following words: "the growing tendency to separate the engineering (i. e., production) function from the control or accounting (i. e., commercial) function, a process which became more and more emphasized as the importance of capital in industry grew."

This chapter contains a number of references to specific works in the accounting field which are of value to the student interested in delving into the history of accounting. As the authors correctly point out, the economic life of Britain was dominated in times preceding the Industrial Revolution by the trading rather than by the manufacturing point of view. They state that the history of control in management is the story of the evolution of accounting and cost accounting and that, therefore, they propose to limit themselves to a discussion of the way in which these functions, "as the only symbol of management," developed with the gradual growth of Britain's modern economic system. They add that "a second important development will also become apparent, namely, the interest that the trading community took in the training of its servants."

The second chapter is unquestionably of value as affording a rapid insight into an important but, after all, limited aspect of the major subject to whose discussion the book addresses itself. One notes (p. 15) the authors' disavowal of the purpose to "deal in summary form with a subject which has been very ably developed in a larger compass by many capable writers." The reviewer nevertheless feels called upon to say that by taking a broader view of the field the authors would undoubtedly have enriched their discussion with a more significant appraisal of management, one that would certainly have made an effective appeal to an American, no less than to a British, audience.

Granting the difficulties attendant upon the performance of such a task, it would nevertheless seem that the available records of certain institutions of semi-public character whose activities ranged over centuries of time, constitute reservoirs of information which would respond to research by yielding reasonably clear pictures of the practices of management in vogue during various stages of their history. Purely from the viewpoint of British interest, one recalls readily the following six institutions of world-wide fame

with whose fortunes Britain, at different times during her history, has been more or less materially concerned:

East India Company (1600 to 1858)	Hanseatic League (ca. 1250 to 1669)
Hudson's Bay Company (1670 to date)	House of Fugger (ca. 1450 to 1806)
Bank of England (ca. 1694 to date)	House of Rothschild (ca. 1769 to present)

The earliest reference to the term management, in its modern connotation, which the reviewer has been able to discover, stems from the year 1714; it is contained in a 48-page pamphlet by Jonathan Swift, entitled *The Management of the Four Last Years* (of the reign of Queen Anne) *Vindicated*.

... In spite of this fact there can be no question that management of a kind flourished for centuries before the Industrial Revolution, for almost invariably practices spring into existence long before they are formalized by name. To obtain assurance on this score, one has only to become reasonably familiar with the contents of such valuable reference works as:

W. J. Ashley—*Introduction to English Economic History and Theory*
A. Bogdanow—*Allgemeine Organisationslehre*
Bulletin of the Business Historical Society, Cambridge, Mass.
N. S. B. Gras and H. M. Larson—*Casebook in American Business History*
J. Lippert—*Kulturgeschichte der Menschheit*
W. B. Parsons—*Engineers and Engineering in the Renaissance*
G. Schmoller—*Grundrisse der Allgemeinen Volkswirtschaftslehre*
W. Sombart—*Der Moderne Kapitalismus*

The third chapter to be considered, but the fifth in point of sequence in the book, aims to provide an approach to the interpretation of the Industrial Revolution in terms of the factor of magnitude of some of the individual manufacturing concerns that flourished during the period. The authors express their keen disappointment at the fact that, although Britain was being transformed into the "workshop of the world," the vast literature describing in detail the progress of the Industrial Revolution concerns itself in the main either with the broader economic aspects of the period or with the technical developments which were in fact the basis of such momentous changes. Questions of "executive control" and management methods are not given objective treatment; "except among the few who have had time and opportunity to specialize in the reading of social and economic history, the picture of the events of the Industrial Revolution is somewhat hazy."

Several questions pertinent to their general theme are raised by the authors. For example, they are interested in determining the motives which stimulated the sudden flood of invention causing the Industrial

Revolution, and speculate in this connection upon the possible influence of such organizations as the Royal Society, founded in 1662, and the Royal Society for the Encouragement of Arts, Manufactures and Commerce, founded in 1754. They, moreover, suggest that "the part played by effective management in the Industrial Revolution may also be examined from the standpoint: Were the manufacturers of the times 'management conscious'?" They proceed to answer this query in the following terms:

If by this is meant that they were aware of the existence of a science or art of management, the answer can only be "no." But if the phrase is used in the sense that they recognised a capacity for effective executive control, distinct from technical competence, the answer is certainly "yes." (p. 65)

As the most important question in the whole of the Industrial Revolution, the authors suggest the following: "If the principles of effective management were understood, why was it that hours of work were universally so long and conditions so poor? Why did Owen encounter such opposition in his fight for minimum standards laid down by law? Why was Owen, as the exponent of effective personnel management, so outstanding? And Oldknow, as a pioneer of the 'welfare' approach, so unusual as to excite special comment?" "To these questions," the authors state, "we cannot at present give any satisfactory reply. They must lie unsolved, with many other problems, until adequate research into the early history of Britain's industrial management can provide an objective answer."

It might be construed as temerity on the part of the reviewer to endeavor to point out the directions in which answers to the questions propounded may be found. He would nevertheless venture upon the statement of a theory that seems to him to offer a tenable explanation of the conditions to which the authors allude. When one reads the first chapter of Ure's *Philosophy of Manufactures*, published in 1835, which bears the caption, *General View of Manufacturing Industry*, one cannot avoid being struck with the fact that Dr. Ure's interpretation of the "scientific, moral and commercial economy of the factory system" is utterly at variance with present-day concepts and beliefs. According to Dr. Ure, the manifold blessings of the factory system are such that "it does not become any man, far less a denizen of this favored land, to vilify the author of a benefaction (he is here referring to Arkwright, inventor of the spinning frame) which, wisely administered, may become the best temporal gift of Providence to the poor, a blessing destined to mitigate, and in some measure to repeal, the primeval curse pronounced on the labor of man, 'in the sweat

of thy face shalt thou eat bread!" To obtain the real flavor of these observations one must read what immediately follows; but this is too long to be quoted and does not lend itself well to a summary. The impression one gains, however, is that Dr. Ure is echoing a widely prevalent view when he expatiates upon the wonders of the factory system and speaks of spacious halls in which

the benignant power of steam summons around him his myriads of willing menials, and assigns to each the regulated task, substituting for painful muscular effort on their part the energies of his gigantic arm, and demanding in return only attention and dexterity to correct such little aberrations as casually occur in his workmanship (p. 18).

In the sequence which the reviewer has chosen to adopt for present purposes, it is now appropriate briefly to consider what the authors have to contribute under the head of scientific management in practice. Chapters III and XI comprise the material in question. The former chapter relates the story of Boulton and Watt, a partnership composed of a business man and an inventor which, as the authors state, "has gone down in the annals of British economic history as one of the high lights of the Industrial Revolution"; the latter concerns itself with the engineering firm of Hans Renold, Ltd., restricting the sketch of this still-existing organization to the period beginning with its establishment in 1879 and ending with the outbreak of World War I.

What the authors have to say with regard to Boulton and Watt is based almost entirely upon a study by Dr. Erich Roll, published in London in 1930 under the title, *An Early Experiment in Industrial Organisation*. There is no direct evidence in support of his assumption, but the reviewer infers from several introductory references that this work was undertaken as a doctoral dissertation at the University of Birmingham. The authors observe that "it fell to Professor Roll to make the first detailed study of the famous partnership and to present to the world the facts of the earliest example of scientific management in practice." They quote, apparently with approval, the following statements in the introduction to the study made by Professor J. G. Smith of the University of Birmingham, under whose supervision the research was undertaken:

Neither Taylor, Ford, nor other modern experts devised anything in the way of plan that cannot be discovered at Soho (the Birmingham factory of Boulton and Watt) before 1805; and the Soho system of costing is superior to that employed in very many successful concerns today. This earliest engineering factory, therefore, possessed an organization on the management side which was not excelled even by the technical skill of the craftsmen it produced (p. 24).

The authors continue with the explana-

tion: "That Professor Roll was able to study the firm's management methods exhaustively was due to the remarkable collection of documents that have been preserved by the Birmingham municipal authorities. Of these, many have not even yet been codified or catalogued." Toward the end of the chapter, the authors observe that "the significance of this amazing experiment in the general history of Scientific Management cannot be exaggerated," and present a summary in Dr. Roll's own words of the main points of present-day interest. It is regrettable that space considerations preclude quotation of this rather lengthy summary.

The reviewer is obliged to refer interested students of scientific management to Dr. Roll's book itself for verification of the claims made by the authors; for his own part, he is regretfully compelled to state that he does not see eye to eye with them, or with Professor Smith, concerning either the significance of the study or the alleged accomplishments of Boulton and Watt in the field of scientific management. The reasons for his position are set forth below:

1. This is a case history which reveals nothing convincing concerning application of the *scientific method* to the solution of the problems of management with which the firm was faced;
2. The book contains a good deal of factual material which suggests the conclusion that the sons of the two founders were of the progressive type of mind, interested in improving organization, wages, labor conditions and business policy, and that they habitually applied themselves to rationalization of the conditions with which they had to contend;
3. There are numerous assertions on the part of Dr. Roll with respect to the scientific character of organization, methods, and plans promulgated, but he fails to carry conviction on the score of the authorities he quotes in support of his views. However secure may be the fame of Alfred Marshall as an economist, one does not necessarily turn to him for "the best and shortest definition of scientific management." Taylor, Gantt, Emerson and Gilbreth should be allowed to speak for themselves through their recorded expositions of the subject;
4. For elucidation of the scientific method, one does not have to fall back, nor was it necessary to do so in 1930, upon definitions offered by Edward D. Jones in his *Administration of Industrial Enterprises*, when the masterpieces of Claude Bernard, Henry Le Chatelier, Louis Pasteur and Henri Poincaré were available to shed authoritative light upon the subject;
5. In seeking to give due credit to the results achieved by the sons of the founders of Boulton and Watt, the author finds it necessary to confess to "a desire to revise the general belief in a comparatively recent introduction of such experiments (in business organization) which have lately been invested with all the glamor of a science." He states that "the history of Soho does not encourage such generalizations . . . and the presence of experiments in scientific management shows that these are not exclusively a product of the era of mass production but were apparent from the very beginning of machine industry." It is a pity that Dr. Roll did not

include even a single authority on scientific management in his footnotes (Ermanski's *Theorie und Praxis der Rationalisierung* cited on page 187 is a possible exception), for by doing so he would have avoided exposing himself to the charge of indulging in unsupported generalizations;

6. Part I of the book, covering 147 pages divided into five chapters, consists of a pedestrian recital of many facts and happenings that have nothing to do with the main thesis advanced. Part II is divided into four chapters and covers an additional 127 pages. There are also copious appendices adding another 39 pages to the book. It is in Part II that the case for scientific management is presented and argued. Based on internal evidence, the reviewer is led to the conclusion that when writing his work Dr. Roll was not sufficiently acquainted with scientific management to qualify as one who could intelligently and accurately appraise the results of his concededly extensive Boulton and Watt researches in terms of what was then, and continues now to be, known as scientific management.

The reviewer earnestly hopes that he does not do Dr. Roll an injustice in giving expression to the foregoing views, which he has seen no reason to change since he formed them upon appearance of the book in 1930.

Turning now to Chapter XI, which is devoted to the engineering firm of Hans Renold, Ltd., we begin for the first time to deal with conditions relating to comparatively recent times. The authors introduce their discussion of the Renold firm with the statement (p. 162) that "scientific management as practiced by F. W. Taylor and his American associates could never have taken root in the soil of British industry. Its principles were undoubtedly applicable. Indeed, they were essential as the basis of effective management anywhere. But the methods by which these principles were to be applied could at best be little more—if they were to succeed at all—than a very free translation from their American original. And that is just indeed what occurred."

This introductory observation is explained by the authors with the statement that "industry in Great Britain learned from the few who had taken the trouble to study, but the process of instruction was at the same time one of gestation. A British 'scientific management' was the result, and its peculiarly national character in the nineteen twenties is nowhere better exhibited than in the official pamphlet published under the auspices of the Ministry of Reconstruction in 1919. The principles had been assimilated and a new foundation for their application evolved."

The reviewer notes this interpretation with respect for the source from which it emanates, but it is his opinion that it fails to account adequately for the reorientation concerning management which occurred in Britain during the period indicated and was, incidentally, facilitated to a not inconsiderable extent by American engineers and the pertinent

American literature of the day. Despite the opposition to Taylor which proceeded on grounds substantially the same as those which prevailed for some years in the United States, the essentials of scientific management, with such modifications in practice as were reasonably called for by existing differences in tradition and viewpoint, found ready propagation on British soil, although, of course, the tempo was governed by the characteristic conservatism and reluctance to change of the British people.

The Renold firm is praised by the authors as "an early example of what scientifically conceived management can mean." Commenting upon a paper on *Engineering Works Organization* read by Mr. Hans Renold at a meeting of the Manchester Association of Engineers, in 1913, they single out for approval "the unmistakable clarity in the application of a cardinal principle of management—a factual basis for the information on which all control and decision is founded." They also speak with emphasis of the system of monthly returns and balances in effect in the Renold firm. They reproduce two organization charts dating from the year 1913 which illustrate, respectively, the functional type of organization maintained and the integration of various research activities undertaken. American students who are familiar with that well-nigh forgotten classic, *The Science and Practice of Management*, by A. H. Church, will not fail to recognize that the Renold concept of organization is strongly reminiscent of Church's approach, as revealed in the series of articles on which his book is based; under the title, *Practical Principles of Rational Management*, these articles appeared in the *Engineering Magazine* from January to June, 1913.

During the course of the Manchester meeting, Mr. Hans Renold delivered himself of certain views which reflect clearly the type of management in whose conduct he was interested. "I am," he said, "personally inclined more and more to the conviction that no large business can be conducted, and the best and fullest use made of the intelligence, experience and knowledge of its leading men, except it be by co-operative councils and discussions. More than this, it is only by sitting together in consultation that younger talents have a chance to show themselves, get known by their directors and the needful encouragement be given to them. The last word, of course, must always remain with the directors." This is an intelligent and sincere tribute to the art of management in its most effective aspects. It reflects much more than merely a germ of the ideas which a quarter-century later were to be incorporated by C. P. McCormick, President of McCormick & Company, in his

plan of "multiple management," and by W. B. Given, Jr., President of the American Brake Shoe Company, in his plan of "bottom-up management."

It is pertinent to the discussion of the Renold firm to call attention to the fact that in 1935, on the occasion of the Sixth International Management Congress held in London, Mr. C. G. Renold, son of the founder and his successor, presented a paper describing the results attendant upon the merger, in 1930, of Hans Renold, Ltd., and the Coventry Chain Company, together with a dozen subsidiaries of both. The language of the paper in dealing with problems of organization and management, as well as with underlying principles, resembles to such an extent that which would be employed in the United States to describe a similar situation that, without specific knowledge to the contrary, one would be wholly justified in pronouncing it as of American origin. One wonders, therefore, what degree of uniqueness the authors wish to attribute to the Renold firm when they characterize it as "a truly outstanding illustration of British scientific management in practice."

Because of the fact that the acceptance of F. W. Taylor by British industry is an issue which was disposed of many years ago, it would serve no useful purpose to comment upon Chapter VII. The reviewer, therefore, passes on to an analysis of Chapters VI, X, VIII and IX which, as previously indicated, concern themselves with early books in the field of management and with the vitally important factor of training. At first blush, the title of Chapter VI, "The Beginnings of Modern Management," appears to have nothing to do with those two subjects. As a matter of fact, the title is misleading because, in the guise of sketching briefly the life story of J. Slater Lewis, engineer and industrialist, who died in 1901 at the age of 49, the text is devoted for the most part to a description of the one book written by him, *The Commercial Organisation of Factories*, published simultaneously in London and New York in 1896.

The authors suggest that Lewis had probably never heard of Taylor, "but he was expounding a method of management, with all his procedures explained in detail, that can well claim to be an advance application of Taylor's principles." In beginning his introductory chapter, Lewis stated that the book was intended as a practical handbook for the use of manufacturers who wished to adopt modern methods of organization, and that it was written throughout from the point of view of an organizer and manager rather than from that of a professional accountant. That Lewis succeeded in attaining his objective becomes apparent when one examines his work of 478 pages of text and

the copious appendices accompanying it. He apparently was possessed of that rare combination of qualities, a pronounced capacity for analysis together with the power of synthesis; moreover, he thought fundamentally with respect to organizational relationships and functionalization and had a clear grasp of the importance of office management. The diagrams of manufacturing accounts and staff organization reproduced in Chapter VI are, considering the remote period during which Lewis conceived them, admirable examples of creative thinking far in advance of the times, and thanks are due to the authors for having made them available to present-day students of management.

Chapter X, which explores the ground covered by some early textbooks on management, testifies in convincing fashion to the care and understanding with which the authors have delved into a field whose investigation must have called for time-consuming and tedious research. They comment in their opening remarks upon the fact that "the interest in the study of management which was developing in the latter part of the nineteenth century could not become really effective without a parallel development of a literature of management as the basis of study." They lead off with a further reference to J. Slater Lewis's book, and stress the fact that prior to the end of the century "it was only possible to pick out one successor as even worthy of mention, a textbook on *The Commercial Management of Engineering Works* by F. G. Burton, published by the Scientific Publishing Company of Manchester in 1899." This book the authors describe in the following terms: "At best it can only be said to deal with certain aspects of management, its bias being to the office procedures involved in the control of production, primarily from a costing and accounting point of view."

The next important book, according to the authors, appeared in 1912, although its subject matter was published between 1908 and 1912 in the form of a long series of articles by A. J. Liversedge under the title, *Commercial Engineering—By a General Manager*, in *The Mechanical World* of Manchester. Chapter 30, on organization, is singled out for particular emphasis as "ahead of anything in contemporary literature in its approach to the main problem of organisation." The authors believe that "here at least lay the germ of most of what is contained in modern thinking on the theory of organisation." They state that "Liversedge was clearly a pioneer writer in that respect, adding considerably to the earlier thought of J. Slater Lewis."

Brief discussions of two other books of importance comprise the balance of the material contained in Chapter X. Both were

published in the year 1914 and are characterized by the authors as outstanding works that were definitely ahead of their time. The first, entitled *Engineer's Costs and Economical Workshop Production*, was written by Dempster-Smith and P. C. N. Pickworth; it "undoubtedly played an important part in the administrative training of the engineer for war needs." The second, *Factory Administration and Accounts*, was written by E. T. Elbourne, assisted by A. Home-Morton and J. Maughlin. The authors believe that "from every aspect, this (work) can be regarded as the first textbook of management in the sense of the principles of sound administrative procedures as distinct from the principles of 'organization and management' per se."

In the same category as the foregoing books, both as to time of publication and content, falls an outstanding English work whose existence has evidently eluded the explorations of the authors, or they would surely have mentioned it. Over forty years ago the reviewer acquired a copy of *Insurance Office Organisation, Management and Accounts* by T. E. Young and R. Masters, published by Sir Isaac Pitman & Sons, Ltd., London, at some time prior to 1908, when a revised edition appeared. For present purposes, only the first and second chapters of this book are of interest. They were written by Young, a distinguished British actuary who, *mirabile dictu*, had acquired a grasp of the principles of organization and management so fundamental as to enable him to present in the text of the fifty-odd pages constituting the two chapters in question, an authoritative exposition of timeless value. In fact, the reviewer does not hesitate to place Young's masterpiece on the same level of excellence as that occupied by Russell Robb's *Lectures on Organisation*, which has long been a classic in the American literature.

Chapters VIII and IX, devoted respectively to consideration of the administrative training of the engineer and training for management in the commercial professions, provide the student with 39 pages of fascinating reading, affording a bird's-eye view of the progress which took place during upwards of a hundred years, terminating in 1935, in the evolution of the concept of training for management. As one might assume, the story told is one of a long, uphill struggle, with little indication that prior to 1935 "the need for and wisdom of specific training for management have been accepted in more than a limited circle." It would take us entirely too far afield to attempt a recital and evaluation of the underlying conditions described. Suffice it to say that after the year indicated, which signalized the holding of the Sixth International Management

Congress in London, the tempo of progress increased markedly, and that the period of armed conflict on a global scale into which Britain entered in 1939 inevitably brought into sharp focus the contribution that competent management alone was in a position to make in securing a successful outcome of the life and death struggle.

Chapters IV, XII and XIII are the final chapters to be dealt with in this review of *Management in British Industry*. In them the authors address themselves principally to a delineation of what they conceive to be the dominant emphasis now resting upon the human factor in management and to a summing up of previously advanced considerations. With excellent judgment and sound historic perspective, they devote the first of these chapters to a discussion of Robert Owen (1771 to 1858) as the pioneer of personnel management, describing him apart from all his other activities as "also a practical, competent and successful industrial executive, and a very early exemplar of modern personnel management." They add that "generations ahead of his time, he preached and practiced a conception of industrial relations which is even now accepted in only a few of the more progressive undertakings."

Having placed Owen, the great pioneer, in his correct setting, the authors proceed to record in Chapter XII—the longest and, as the reviewer believes, the most brilliant and challenging of the entire series—their interpretation of the evolution of the human factor in management during nearly 150 years of British economic and social history. For purposes of contrast the over-all period has been divided into several epochs, of which the earliest runs to 1875; the balance of the time is separated as follows: 1876 to 1921, 1920 to 1940, and 1940 to 1943. This chapter is so important that it really requires an independent review to do it justice; therefore, no attempt will be made to give an indication of its contents beyond what has already been recorded. It should be read by all who are interested in the ground it covers and should make a special appeal to American readers because of the comparisons between British and American conditions that it will inevitably suggest. After studying the chapter, the reviewer has gained the definite impression that the appraisal of British progress is less favorable than the circumstances warrant, and that when the authors touch upon American experience, they are apt to view it *couleur de rose*.

In Chapter XIII, the concluding one of Vol. II, the authors present a general interpretation of the ground they have covered and indulge in a forward look with respect to management in Britain. "Only a simple claim is made for the contents of this second volume, that they give a brief glimpse of the

background of Britain's industrial system from a special standpoint." The authors state that "the significance of the story lies rather in its implications than in the facts and descriptions which it records." These implications they express in the following terms:

1. The first point which emerges is that Great Britain has a long history of management which antedates F. W. Taylor's work by scores of years, if not by centuries;
2. In the second place, it is clear that British industry has made many contributions to the evolution of the principles of management;
3. The third implication is of particular significance for the future of British industry. Nothing perhaps stands out so clearly from the historical picture presented in the volume as the general neglect of management among our early great industrialists. The pioneers were not only initiators: they were outstanding, unique;
4. A fourth and final implication to be drawn from the chapters of this volume may be put in the form of a question: What contribution did management make to the progress of Britain's industry in the decades of the Industrial Revolution? Any full answer at the present juncture cannot be more than a guess. (pp. 217-219).

For special emphasis in the foregoing connection the authors single out three aspects of the story of scientific management, "if only for their pertinence to contemporary problems and development. They are the training problem, the development of the earlier textbooks, and the story of the acceptance of Taylor by the executives of British industry." The authors' interpretation concludes with the statement that "any account of the unfolding of industrial management in Great Britain could end only in one way, in the story of the personnel function, the human factor in management."

The reviewer heartily concurs in the appropriateness of this end topic. It has always been his conviction that in the evolution of a sound program of industrial relations, Great Britain is abundantly able to make contributions that will equal those of any other country of the world. In the light of the deplorable conditions with which we in America have been confronted in recent years, it is not for us to "point with pride" or to boast of the results which have attended our efforts to solve problems pertaining to the human factor. Nor does it seem likely that we shall soon be in a position to derive comfort and encouragement from scientific researches, conducted under however eminent academic auspices, in the area occupied by the foundations of management. Such pioneering as both countries require must address itself primarily to the structure of organization and the elements of the art of management as a prerequisite to acquisition of a clear understanding of the task of the executive and of the qualifications required for its successful performance.

The authors seem to believe that the United States is, and has been, much more concerned than their own country about the philosophy underlying management. Perhaps this is true, but the reasons advanced by them in support of their belief are not convincing, and in some respects not correct. We do not have in this country "some hundreds" of firms of management consultants. From its earliest stages, the study of management was not adopted enthusiastically by the established engineering institutions as an integral part of their professional work. We are not free from a "proliferation of voluntary institutions" in the field of management, and if we were, the reviewer, for one, would be inclined to regret the fact because each of the established management associations and societies has a legitimate mission to perform.

If there is any fault to find with the American management movement, it lies in the fact that the institutions composing it are becoming too large, that here and there evidences of bureaucracy are manifesting themselves, and that a risk of some dimensions is at present threatening the quality of the scientific product which alone gives sanction to their continuing endeavors. There is no necessary correlation between the quantitative aspects of the latter and the qualitative standards achieved. Nor should one view with unconcern any attempt made by a management association or society to establish a predominant position, except on the basis of the scholarly character of its contributions to the body of management knowledge. The very fact of the growing interest in the problem of the optimum of size which one sees reflected in recent British publications augurs well for the development of a well-rounded, progressive and sound viewpoint by British industrialists in matters pertaining to management.

The panorama spread before the reader in the pages of *Management in British Industry* is stimulating in high degree and strongly suggests rich areas for collateral exploration. In undertaking their task under difficult war conditions, Col. Urwick and Mr. Brech have shown great courage and persistence, coupled with scholarly devotion to the objective which they set themselves. The result is a contribution of distinguished character to the literature of management and an illuminating commentary on a period of British economic history which will serve to explain much that might otherwise remain incomprehensible. This volume is to be respected and admired hardly less for its interpretation of pertinent conditions in the United States than for its able portrayal of the evolution of management in Great Britain.

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THE PRACTICAL WAY TO HANDLE GRIEVANCES. Labor Relations Institute, 1776 Broadway, New York 19, N. Y., 1946. 58 pages. \$2.25.

LABOR-MANAGEMENT COOPERATION: A Case Study in the Minneapolis Laundry Industry. Bulletin 11, Industrial Relations Center, University of Minnesota, Minneapolis, July, 1946. 20 pages.

IMPROVE YOUR TRAINING TECHNIQUE. By Daymond J. Aiken. Prentice-Hall, Inc., New York, 1946. 31 pages.

WOMEN WORKERS IN TEN WAR PRODUCTION AREAS AND THEIR POSTWAR EMPLOYMENT PLANS. Bulletin No. 209, Women's Bureau, U. S. Department of Labor, 1946. Available from Superintendent of Documents, Washington 25, D. C. 56 pages. 15 cents.

THE MENSURATION OF MANAGEMENT. By T. G. Rose. No. 3, Series of Monographs on Higher Management, Department of Industrial Administration, Manchester Municipal College of Technology, Manchester, England, July, 1946. 38 pages.

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